WHAT DIGITAL CAMERA

October 2005 Issue No. 101 £4.20 (UK)

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BLACK & WHITE SPECIAL ISSUE

B&W TECHNIQUE

REPORTAGE
Why Magnum snapper Alex Majoli uses compacts

FASHION
On the catwalk with top fashionista Nick Scott

LANDSCAPES
It's all in the details, says mono lover Rod Stewart

B&W INFRARED
John Freeman shares his advice and tips

TRIED & TESTED

NIKON D2HS
Move over Speedy Gonzales!

KONICA MINOLTA 5D
Canon Digital Ixus 50
Olympus Mju 800
Fujifilm Finepix Z1
Sony Ericsson K750i
A3 Inkjet Printers
Raw Processing Software

MAGNIFICENT MONO

20 Pages of advice and inspiration for great B&W photos – the digital way

WIN!

3 Kodak Z740s and Printer Docks up for grabs

recycle

AOL Keyword: What Digital Camera

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WHAT DIGITAL CAMERA

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WELCOME...

...to our annual black and white issue. Yes, despite all the great advances in colour technology, the developments of new colour dyes and pigments for printers, and improvements in colour management, black and white just won't go away. That's because there's something very special about a beautifully printed black and white image. It's magical. Yes of course, that isn't what the real world looks like, but then it isn't two-dimensional either.

If you're a lover of monochrome photography you'll find plenty here (and in the supplement) to inspire you. If haven't yet succumbed to the joys of the greyscale then I hope this issue will help convert you. Our featured photographers this month hail from London, Italy and Canada, and photograph very different subject matter, but all share a love of black and white and have plenty of useful tips on getting the best out of it.

Our Big Test this month (page 20) features the lovely new Konica Minolta Dynax 5D, a reminder, if one were needed, that when it comes to quality digital SLRs it isn't just about Canon and Nikon. Mind you, if it's speed you're after then you can't beat Nikon's professional D2Hs – it's the fastest DSLR in the west (or anywhere else for that matter). Our test is on page 30. Enjoy the issue and see you next month.

Nigel Atherton
nigel_atherton@ipcmedia.com

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The **P6250** printer is designed for digital photographers, with six-colour output and borderless capabilities. It features on-board card readers that support PictBridge, a photo scan guide with LED lights, a 2.5" LCD screen (so you can preview and print without a PC), and photo lab software to enhance your photos in an instant. It also scans and copies, so sharing photos is ultra-simple. The P6250 retails for £149.99.

WIN! LEXMARK™

Letter of the month wins the fantastic £149 Lexmark P6250

WDC Letters

Something to say? Then drop us a line

Contact us at: What Digital Camera, King's Reach Tower, Stamford Street, London SE1 9LS
Tel: 020 7261 5323 Fax: 020 7261 5398 Email: wdc@ipcmedia.com

Gender defender

Maureen Osborne

My husband Tom banged on for months for a digicam and PC set-up. A month after buying them he was still struggling with the camera instructions, never mind the PC. 'Er, do we still have our Canon Sureshot?' he asked. We did. The digital set-up was then abandoned for a 20-year-old compact. Abandoned by him – but not me. I enrolled in a night class in digital photography and am currently getting to be good at Photoshop.

My first efforts have earned me Brownie points from my tutor. Meanwhile, Tom continues to take bleached-out, blurred pics of our two cats which so far have earned HIM numerous stick-on labels from the processor telling him where he's going wrong.

WDC reader Dennis Gray (Letters, August) believes that men and women have a different relationship with the visual world. They certainly do in our house, Dennis!

Digicams don't bounce

John Wood

I found out recently to my cost that digital cameras are a lot less sturdy than their film counterparts. After saving for months for an Olympus C-770 I rushed out to buy one. As I passed the library I thought I'd pop in, take a seat and peruse the instruction manual.

I was sitting with the camera on my knee when an old chap nearby took a funny turn and fell towards me. Instinctively I jumped up to support him and the camera went clunk onto the table in front of me. Thankfully the old chap was okay but the camera? Oh dear! When I switched it on, it made a pitiful whining noise. When I tried the zoom it went forward and lopped onto one side. In building trade language it was knackered with a capital F.

Not surprisingly, the shop assistant where I'd bought the camera was sympathetic, but unable to help. My wife told me it was a 'valuable lesson learnt.' At £250 she isn't wrong.

Below: Accidental damage to your camera may be covered by household insurance

WDC: *You were unlucky, John. We hear stories of digicams surviving much greater falls. I once had a 35mm camera break after falling 1ft off a coffee table onto shagpile carpet, and another which survived a 4ft fall onto concrete with barely a scratch. Film or digital makes little difference – it depends whether fortune was shining on you. Have you considered checking with your home contents insurer? It may be covered.* **NA**

Control freaks?

Mick Bidewell

Nigel Atherton's analogy in his July editorial between 'just how much is enough?' supermarkets and camera manufacturers' control of the software we use was spot-on. Camera makers always warn of independent equipment not being ideal for their cameras but the choice of using it has always been down to the photographer. If plans for what Nigel called 'control freakery' come to fruition then that choice will be denied us. But I, for one, would certainly boycott any company that resorted to it.

Letter of the month

this month's **STAR** prize

Hidden depths

Iain Swann

As much as I love curling up with a bacon sarnie, cup of tea and the latest issue of WDC, I confess that I don't own – and don't want – a computer. I've just bought an Olympus digital compact and the instruction book is basic to say the least and gives no real inkling of the camera's versatility.

Camera makers always assume that anyone who buys a digicam must also own a computer. Not so! It was only when my son played the instruction book on the CD ROM on his computer that I was able to discover that my camera is much more capable than the printed instruction booklet would have me believe. Obviously, a printed instruction book would be considerably thicker were it to contain the same info as the CD but, in a case like that, I'd simply curl up with several bacon sarnies, a big pot of tea and read it from cover to cover.

WDC: *Enough with the bacon sandwiches – you're making me hungry! Seriously though, as Hannah points out in her review on page 35, it's odd when manufacturers go to such lengths to make cameras less dependent on PCs and then put the advanced instruction manual on CD.* **NA**

SoundByte

The new Canon EOS 5D has really set the cat among the pigeons, says **Nigel Atherton**

We've become accustomed to DSLR launches in recent months, especially in the entry-level sector, which is now starting to get a bit crowded. But the announcement of the Canon EOS 5D is an entirely different beast, and is the most significant launch for some time.

For the 5D boasts what is the holy grail for many traditional SLR users: a full-frame sensor. For the unenlightened, this is a sensor which is the same size as a frame of 35mm film. This means that lenses from existing 35mm systems can be migrated to the 5D with no change in the field of view (unlike other, smaller DSLR sensors which produce at least a 1.5x magnification factor) so wideangles are still wideangle. For all except power telephoto users (like wildlife and sports snappers) for whom that magnification factor is a bonus, that's an attractive attribute. You also get a lovely large, bright image in the viewfinder.

But most important of all, following the

'As far as we know, no-one else plans to offer a full-frame sensor'

principle that a good big'un will always beat a good little'un, it has the potential to deliver much better image quality. A bigger sensor means bigger pixels with more light-gathering power, and the 5D has nearly 13 million of them.

Of course full-frame sensors aren't new. Canon introduced them on the 11MP EOS 1DS in 2002 but it cost £7000. Its successor, the 1DS Mk.II costs about £5000. The 5D is just £2500.

Now don't get me wrong. That's still a hell of a lot of money to the amateur (although pros will probably recoup that in a matter of weeks), but price deflation being what it is, hobbyists can look forward to seeing it sub £2000 – and of course, just over the horizon, maybe an even cheaper full-frame DSLR. It's so close we can almost touch it.

So where does that leave Canon's rivals? Well as far as we know, no-one else plans to offer a full-frame sensor in the foreseeable future. Indeed, since Nikon, Pentax, Konica Minolta and Sigma don't currently produce their own sensors, they aren't entirely in control of their own destiny on that front. Fujifilm has an excellent SuperCCD in the S3 Pro but it's expensive, and the leap to the full-frame 5D perhaps not unbreachable. Olympus' four-thirds sensor is only about a quarter the size of the 5D's sensor. Olympus claims that its digital-optimised design can deliver better-quality images than other, bigger sensors, but can it really make up for a fourfold size difference?

And even if Canon's rivals *can* equal the full-frame 5D in image quality, will consumers still choose the Canon anyway, for its other advantages

Questions, questions. I guess we're all just going to have to wait and see.

Whodunnit?

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Simply visit the Gallery on our website at www.whatdigitalcamera.com and tell us who took this picture, and on which camera. Then, go to the 'Competitions' section, select 'Whodunnit' and enter your answer. The winner will be chosen at random.

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Monkey Business

Philip Bradley

On a recent long-haul flight I enjoyed every page of WDC, even if I did feel Martin Evening's non photographic perspective on Monkey Business by James Lowell (August 2005), was a bit naïve. The monkey is not a pet or entertainment, it is this gentleman's livelihood. In fact you could have moved the picture six pages into the Photographer of the Year article on 'work'. That said, this is an excellent reminder about the purpose of our images. A great photo can draw out emotions hidden in us all. Thank you again for an unexpectedly thought-provoking read!

Bad Timing

Norman Lewis

In mid-February I took the plunge and bought Photoshop CS. I'm sure you can appreciate my frustration in reading in WDC a month later that Photoshop CS2 would soon be available for a predicted £100 less than I paid for the previous version. I phoned Adobe to enquire if a discounted upgrade would be available. I was told a full-price upgrade was the only option. The thought of having the latest software by, in effect, paying £200 more than the full list price was not attractive!

I know we're in a fast-moving technology environment, but what price is put on goodwill? Surely providers of flagship software could afford a sliding scale of upgrade charges for those unfortunate to have bought an earlier version just prior to the announcement of a revision. Perhaps Adobe do not feel the need for customer goodwill.

WDC: *As someone who habitually seems to buy stuff the week before it goes into the half price sale I can sympathise, but I can also see that every time a manufacturer or retailer holds a sale or upgrades their products someone somewhere loses out.* ***NA***

Say no to the softies

David Morgan

I've read reviews of the Nikon D70s and Canon 350D in which reviewers have commented on a softness in the images which 'can be corrected in Photoshop'. For heaven's sake why? If two major manufacturers have to rely on software to correct problems with the results then surely they should correct those faults during manufacture so that the problems don't occur in the first place.

My Sony F828 gives cracking results every time, with images that need no fiddling about with. If it did, I wouldn't have bought it. Even the dreaded fringing I've never been able to reproduce in over 2000 images taken. Why should Nikon and Canon been given the benefit of the doubt when this is denied to other manufacturers, whose products are marked down compared to the Big Two?

WDC: *The sharpening levels of these cameras can be adjusted to the level they are on most compacts but in-camera sharpening, while fine for most people, is not that sophisticated. Many SLR users prefer the control and superior results that can be achieved by doing it manually, where it can be adjusted to suit the subject and even applied locally. Shooting in RAW format, which many users also prefer, gives them even more work to do on the PC. But then, most people continue to drive cars with manual gearboxes in preference to automatic ones. Incidentally, a look at the Buyers Guide at the back will confirm that we show no bias towards the 'big two'. There are plenty of non-Nikon/Canon cameras with 'Choice' rosettes, and plenty of Nikons and Canons without them.* ***NA***

Good Riddance

Ian Sadler

I for one will not mourn Kyocera's withdrawal from the digital market and it doesn't come as a surprise. One thing that stood out in your article was that 'Kyocera will continue to provide after-sales services to its customers' Oh really?

Being new to photography, I still use a lot of film. While out walking one day my Yashica T4 Zoom failed. It was only just out of guarantee and the guarantee had been properly registered.

Kyocera offered nil help, nil understanding and nil customer care. Their attitude seemed to be that, in our increasingly disposable society, the customers are disposable too. Thankfully not everyone is like that. Nikon and Minolta were both very helpful recently, and I don't own any of their cameras. And my local lab still offers a very personal service.

Web Forum Chat

B&W Prints from Digital

Posted by: johnmhague
Board: Monochrome Photography
Where can I get B&W prints from digital images? I've used Boots/Jacobs but they use a colour paper/process so there's a green tinge to everything.
Posted by: snapperlondon
Try Potosi (www.potosiltd.com), a London based lab who can produce fibre-based B&W prints from digital files! I haven't used them myself, but they've been recommended by a friend.
Posted by: yashicamat
I've just aquired a Canon IP5000 and have been amazed at its B&W abilities. Even direct printing from my 350D, B&W prints are remarkably colour-cast free.

Shooting in RAW format

Posted by: seven
Board: Lounge
Yesterday I took shot 50 shots in NEF [Nikon's RAW format]. Now I know you lot are going to say told you so, the post processing is a pain in the backside for my little patience, so I just opened them straight up in Photoshop and sorted them there. It still took twice as long, but I think I'm converted!
Posted by: dave_h
I finally got to give my new 7D a proper workout yesterday and shot everything in RAW (MRW for Minolta). I actually found using Raw Shooter Essentials pretty easy but I know what you mean, with every shot needing converting. However, the image quality is stunning! Especially if I output to an Adobe RGB 16bit TIFF file (36MB, mind!) I think my route will be JPEG for everyday and RAW for the 'special stuff'.

Dynax 5D

Posted by: davidkramrisch
Board: News discussion
So Minolta are getting further into the DSLR market with the Dynax 5D. The camera looks to be a direct competitor to the Nikon D50 or Canon 350D, but I don't see how they can possibly hope to sell it at £599 because the Dynax 7D already sells for only £680 from many outlets. I have tested the 7D and its anti-shake mechanism is superb. Minolta, try £450-480 to match rivals such as the excellent Nikon D50!

Our survey said...

QUESTION: Are you a member of the Royal Photographic Society?

Yes	12%
No	88%

Vote on this month's poll at: ***www.whatdigitalcamera.com***

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Canon's Autumn Line-up

EOS 5D full-frame DSLR heads Canon's raft of new launches

Two DSLRs and a selection of compacts to suit all budgets join Canon's digital line-up.

Costing £2500, the **EOS 5D** has halved the cost of buying a full-frame DSLR. Weighing just 810g, it is built from a compact magnesium alloy shell similar in size to the EOS 20D, making it significantly smaller and lighter than Canon's current full-frame DSLR, the 1DS MkII (that costs over £5000).

The 12.8MP full-frame CMOS sensor measures 35.8 x 23.9 mm (the same as a 35mm film frame) and gives photographers a full angle of view from standard 35mm-based lenses without magnification or cropping effect. Available in October, other features include ISO 100-1600, extendable to ISO 50 and 3200, JPEG burst mode of 60 shots at 3fps, 9-point AF with six assist AF points and 2.5in LCD.

Available in September for £3049, the **EOS-1D Mark II N** features an 8.2MP CMOS sensor and 8.5fps burst rate up to 48 JPEG files, or 22 RAW files.

At £419 the **Ixus 750** is the new Ixus flagship and boasts a 7.1MP sensor, 3x optical zoom and a 2.5in LCD screen. The smaller £329 **Ixus 55** is finished in silver-white palladium plating on stainless steel.

The 5MP **Ixus i Zoom** builds on the popularity of the Ixus i with a 2.4x optical zoom. Available in four colours for £319, additional features include nine-point AiAF, 16 shooting modes and a 1.8in LCD.

Canon has also launched four new Powershot cameras. The **A410** is a 3.2MP, 3.2x zoom model priced £139. The £279 **A610** offers a 5MP sensor, 4x optical zoom (35-140mm) and a 2in vari-angle LCD screen; the 20 exposure modes include full manual, shutter priority and a custom mode. The £319 **A620** offers a similar spec but with a 7.1MP chip.

Priced £499, the **Powershot S80** replaces the S70 with a re-designed body 8% smaller than its predecessor and a wide 28-100mm lens. Targeting the demanding enthusiast user, it has an 8MP CMOS sensor, 2.5in LCD and, for the first time on a digital compact, an EOS-style rotary multi-control dial for quick setting of functions and rapid scrolling through images. The S80 will be available from October, while the other new models hit the shops in September.

9MP From Fujifilm

The S9500, E900 and S5600 are three new additions to the Fujifilm FinePix range.

The 9MP **S9500** is described as 'a model that marks the point where compact digital cameras and digital SLRs meet', incorporating a 28-300mm lens. Start-up time is 0.8secs and shutter lag is 0.01 second, while the tilting 1.8in LCD screen enables shooting at unusual angles. With a class-leading sensitivity range of ISO 80-1600, the S9500 includes a full set of exposure modes, a hotshoe, PC sync terminal and RAW shooting mode.

The 9MP **E900** features a Super CCD HR sensor, 4x optical 32-128mm lens and ISO range of 80-800. With a full range of exposure modes and scene modes, the E900 promises a 1.3sec start up.

Incorporating a 10x optical zoom, a new Anti-Blur mode features in the **S5600**, and low-light shooting is possible thanks to an ISO range of 64 to 1600. Encased in a new fixed housing, the f/3.2-3.5 Fujinon lens has a focal length of 38-380mm. Start-up is 1.1sec and there's a 0.01sec shutter lag time.

The S9500 will cost £549.99 and the S5600 £299.99. Visit **www.fujifilm.co.uk** or call 0207 586 1477.

Two New Kodak Superzooms

Kodak has introduced its new high-end 'P' series with two models: the P880 and P850.

The top-of-the-range **P880** is being promoted as an alternative to a digital SLR. It has an 8MP sensor and a wideangle Schneider Kreuznach Variogon 24-140mm lens controlled using a manual focus ring. In a first for a Kodak digital camera, the P880 also offers RAW file support, and features an embedded JPEG within each file for easy browsing.

It also includes Manual, Shutter Priority, Aperture Priority and Program modes alongside a selection of scene modes.

Photographs can be previewed on the 2.5in LCD screen, composed of 237,000 pixels. The P880 has the facility to capture 30fps VGA movies and features a live-histogram and shutter speeds range from 16-1/4000 seconds.

The **P850** is a 5MP compact with a 36-432mm lens featuring an optical image stabiliser to reduce the effects of camera shake in low-light conditions; Kodak claims it enables a 2-stop advantage over digital cameras without the technology.

The EasyShare P880 will retail at £449, while the P850 will cost £349.99. Kodak has also announced a 1.4x Schneider-Kreuznach Xenar converter that will retail at £99.99.

Pentax In The Sixties

The Optio 60 and S60 are 6MP additions to Pentax's Optio range.

The **Optio 60** has a resolution of 6MP and 3x optical zoom (36-108mm). Pentax promises vivid images with minimal noise.

As well as a 2.5in LCD the Optio 60 features a viewfinder with dioptre adjustment. Newcomers to digital photography can take advantage of the fully automatic 'Simple' mode, while the mode dial offers six still-shooting modes and movie.

Described as 'ideal for the beginner and slightly more experienced photographer', the **Optio S60** has a 35-105mm lens and 12 picture modes, and Auto Select mode chooses the mode most appropriate. A 12-bit A/D converter helps reproduce different gradations accurately and in dim lighting. The Optio 60 is as-yet unpriced; the S60 will cost £250. Call 01753 792792 or visit **www.pentax.co.uk**

Casio Quads

The EXILIM range is expanding with four new additions; the 5MP EX-Z500, 7.2MP EX-Z120 and the EX-Z110 and EX-Z10, which have resolutions of 6MP and 5MP respectively.

All four cameras have a 3x optical zoom and Anti-Shake DSP technology. Casio says the EX-Z500 has a shutter release time lag of 0.007 seconds and 0.9 seconds until the first shot, once the camera is on.

Featuring a 2.7in LCD the EX-Z500 has a large-capacity battery that can take 500 images from a single charge, the EX-Z120 can capture 170 shots, the EX-Z110 180 shots and the EX-Z10 270 shots, according to CIPA standard.

Each camera features the EXILIM Engine, helping to enable fast operation and reduce power consumption. The Z500 will cost £279 and the Z10 £169. Other prices are to be announced. See **www.exilim.co.uk** or call 0208 208 7801.

DIXON TO STOP SELLING 35MM CAMERAS

Dixons has announced that it will no longer be selling 35mm film cameras in its high-street stores. In a statement on its website Dixons reports that sales of digital cameras are overtaking 35mm at a rate of 15:1. The increase can be attributed to falling digital camera prices coupled with improvements in digital technology; results of a customer survey that Dixons recently carried out revealed that 93% of people couldn't tell the difference between film and digital prints. For the next couple of months, 35mm cameras will be available to buy at Dixons stores, and a limited range will be available from Dixons tax-free shops.

GENIUS-SHOT DV610

The G-Shot DV610 combines a digital camera, video camera, web camera, voice recorder, MP3 player and mass storage device.

This compact 6-in-1 unit includes a 3MP CMOS sensor that can interpolate up to 6.6MP, an 8x digital zoom, and has the ability to capture MPEG-4 movies.

Images can be viewed on a 2in 120,000 pixel LTPS LCD screen. Supplied with the DV610 is a lithium-ion battery promising three hours of battery life. The G-Shot DV610 will retail at £129. Find out more at **www.geniusnet.co.uk/reseller.html** or by calling 0208 664 2727.

BONUSPRINT ALBUMS

A new service from Bonusprint enables photographers to create a bound album of their favourite pictures.

Using Bonusprint Photo Book Editor software – which is available as a free download from the company's website – users can arrange up to 16 photos on one of 58 templates, along with captions. It is then uploaded onto the company's website and delivered within 10 days.

Prices start at £29.99 for the small book, rising to £49.99 for the large book, and an 8x6-inch soft-cover book retails for £12.99.

Download the software from **www.bonusprint.co.uk/photobooks**

PAY MONTHLY CAM PHONES

Jessops has started a new scheme whereby users can buy digital camera phones on monthly contracts from 40 stores nationwide.

Handsets manufactured by Nokia, Sony Ericsson, Samsung and Motorola featuring a resolution of 1MP and 2MP, will be available on networks Vodafone, Orange, 3, T-Mobile and O2. Ravi Chambers from Jessops comments: 'We are committed to maintaining our position as a one-stop shot for photographic equipment of every kind – and meeting customer demand.'

The phones will also be available through mail order by calling 0800 652 6400 or from www.jessops.com and are set to roll out in all 270 Jessops stores later in the year.

SOFT SCREEN FOR SLR FLASH

LumiQuest has unveiled a flash diffuser that can be used with digital SLRs. Soft Screen is designed to reduce the effect of 'hot spots' and harsh shadows that can be created by pop-up flashes. Compatible with the majority of digital SLRs, it connects to the flash using Velcro dots and can also be folded to 4x4-inches for convenient storage.

LumiQuest Soft Screen retails for £9.99 and is available from Newpro UK. Call 01367 242411, or for more information on LumiQuest products log onto **www.lumiquest.com**

>>

Sony Releases T5

Sony has introduced a slim line addition to its Cyber-shot range featuring a 3x optical Carl Zeiss lens and 5MP Super HAD CCD.

Incorporating a folded path lens system that doesn't protrude from the camera body, the **DSC-T5** has a slim depth of 15.3mm.

Constructed from aluminium, images can be viewed on the 2.5in Hybrid Clear LCD screen that Sony claims even works effectively in bright sunlight. Ten scene modes feature, including Twilight, Fireworks and Beach, while the Magnifying Glass focuses as close as 1cm.

Sony has significantly improved the battery capacity; it can now capture 240 shots from a single charge, 33% better than the T33 and T3.

The T5 can capture MPEG movie clips and includes 32Mb internal memory. Available in matte black and brushed aluminium, the T5 will cost about £280. Visit **www.sony.co.uk** or call 08705 111999.

LENS AND ACCESSORY NEWS

Corel Unleashes Version X

Corel has announced the latest edition of Paint-Shop Pro, version X.

The user interface has been redesigned and the new Learning Centre designed for novices offers step-by-step guidance for image-editing tasks, while the integrated Browser can display editable EXIF data and features a zoom slider.

Time-saving new features inlcude the One-Step Noise Fix, Red-Eye tool and One-Step Purple Fringe Fix. Smart Photo Fix improves the colour, sharpness, saturation and brightness, while allowing users to make changes. The Makeover tool has features like: the Toothbrush, Suntan Brush, Blemish Fixer and Wrinkle Fixer.

New to version X is the High Pass Filter that helps with image sharpening, while users can simulate mono and infrared film using the Black and White Conversion and Black and White Infrared Conversion filters.

Promising a faster start-up, Paint Shop Pro X offers 16-bit support and CMYK output. It can also read and save colour profile data.

PaintShop Pro X is available for about £99 and is bundled with Corel Photo Album 6 software and Pixmantec RawShooter Essentials. See **www.corel.co.uk** or call 01628 589800.

Tokina Ultra Wide Angle Lens

Tokina has introduced a new ultra-wideangle AT-X 124 AF PRO DX lens, designed for Nikon and Canon DSLRs.

With a focal range of 12-24mm (equivalent to 18-36mm), the lens is compatible with DSLRs with an APS-C sensor. Fast internal focusing is enabled by Tokina's One Touch focus clutch mechanism, which makes it easy to swap between manual and AF.

Incorporated are two sharp-cut aspherical elements for rectifying aspherical aberration, while Tokina's SD Super Low Dispersion technology is designed to enable plenty of light at a bright aperture of f/4. The lens is lightweight, as the outer lens barrels are made from advanced polycarbonate, while for durability the zoom unit is metal and has a chrome-plated brass mount. Available now for £399.99, the lens is distributed in the UK by Sangers Group. Call 0870 444 0003.

Olympus Bowls 600

The 600 Digital is the latest entry into Olympus's mju range; a 6MP compact with a 3x optical 35-105mm lens.

It incorporates BrightCapture Technology comprised of three shooting modes: Available Light Portrait, Indoors and Night, which is designed to make framing in dark conditions easier, helping prevent blurred images.

Available in three colours: Navy Blue, Ruby Red and Arctic Silver, its body is weatherproof. There are 23 scene modes, while the 2.5in LCD screen offers a 160° viewing angle and three times the contrast of a conventional LCD.

Other features include a 7cm Super Macro Mode, compatibility with the Pictbridge standard and TruePic TURBO processor.

The **mju 600 Digital** will be out at the end of September for £220. Call 0800 072 0070 or visit **www.olympus.co.uk**

snap shots

TOSHIBA RELAUNCHES LIBRETTO RANGE

The libretto U100 has been released to mark the 20th anniversary of the launch of the notebook. This 7.2in mini-notebook weighs less than 1kg and has 4.5 hours of battery life. Incorporated into the device is an UltraLowVoltage Pentium M processor, while the LCD screen promises bright colours, sharpness and contrast thanks to Toshiba TruBrite and LED backlighting technology. The libretto U100 will retail for around £1467 (£1249+VAT). Find out more at **www.toshiba.co.uk/computers** or by calling 0870 44 8943.

DVD-R FROM DELKIN INCORPORATING GOLD

Digital photographers can now back-up their photographs onto DVD-Rs incorporating 24-carat gold. Delkin's eFilm Archival Gold range now contains DVD-Rs, available at speeds of 4x and in capacities of 4.75Gb. Tests by Delkin indicate a storage period of 100 years. They are available in packs of 10 and 16 (with a case and wallet) or 25 and 100 (pack spindles). Find out more by calling 0870 444 003 or by logging onto **www.delkin.com**

JVC EVERIO GZ-MG70

The Everio GZ-MG70 is a new camcorder from JVC incorporating a 30Gb built-in hard-disc drive. It is the flagship model in the Everio G series, billed as 'the world's first collection of camcorders to use built-in hard disk drives as a storage media'. Incorporating a 2.12MP CCD that can capture 1.23MP moving images and 2MP still photos, the hard drive on the Everio can capture between seven hours (in ultra fine mode) and 37.5 hours (in economy mode) of video footage, eliminating the need for a memory card. The GZ-MG70 is set to arrive in October, and JVC has yet to announce a price. For more information log onto **www.jvc.co.uk**

DIGITAL SLR BELLOWS

LD is a new product from Horseman adding bellows functions to Canon EOS or Nikon F mount digital SLRs. Bellows functions have traditionally been found on medium and large format cameras and enable the angle and lens position to tilt, shift, fall and rise against the image plane. This is useful for rectifying image distortions and is utilised in industrial product and architectural photography. LD is available from Robert White for £1240 (£1055+VAT). Find out more by logging onto **www.robertwhite.co.uk** or by calling 01202 723046.

FILE MANAGEMENT MAJOR CONCERN TO DIGITAL PHOTOGRAPHERS

Research conducted by software developer iView highlights key issues for professional photographers.

- 51% of professional photographers say file management is the greatest challenge associated with digital photography
- 35% feel that the advantage of digital photography is greater control
- 25% say that the advantage of digital photography is that it enables greater creativity.

Find out more at **www.iview-multimedia.com**

PRINTER & SCANNER NEWS

Canon in Printers Frenzy

Canon is extending its range of single-function PIXMA inkjet printers with six new models.

Retailing at £49 and £69, the **iP6200** and **iP2200** are four-ink printers with a resolution of 4800x1200dpi that can produce 6x4in prints at respective speeds of 70 and 55 seconds.

With a resolution of 9600x2400dpi and retailing at £119, the **iP4200** is the first printer in its price bracket with the capability to produce ink drops one-picolitre in size and 6x4in print speeds of 51secs.

The **iP5200** and **iP5200R** are five-ink printers that can produce prints with a resolution of 9600x2400dpi. Priced £159 and £199 respectively, both can create 6x4in prints in around 36 seconds and the iP5200R enables Wi-Fi connectivity for remote picture transfer.

At £169, the **iP6600D** is a high-speed six-ink printer with a resolution of 9600x2400dpi. Incorporated into the printer is a 3.5in LCD and tools to rectify common problems such as red-eye and underexposed detail.

The iP16200, iP2200 and iP4200 are available in September, while the other three will be released in October.

Three models have also been added to Canon's SELPHY range. Retailing at £129 and £169 respectively, the **CP510** and **CP710** are dye-sublimation printers that can be used with an optional battery pack. The CP710 also features memory card slots and a 1.5in LCD.

As well as memory card slots and PictBridge compatibity, the inkjet **SELPHY DS810** can produce prints from camera phones through iRDA or an optional Bluetooth adaptor. Retailing at £149 it can produce photolab prints in 63 seconds and has a 2.5in LCD screen.

Visit **www.canon.co.uk** or call 08705 143723.

Three From HP

HP has introduced three new printers: two entries into its Deskjet and one in its Officejet range.

Combining a printer, scanner, fax and copier, the **HP 5610** All-in-One can be used for scanning photographs, 3D objects and documents. Retailing at £129.99, it has a resolution of 4800x1200dpi and 48-bit colour.

The **HP Deskjet 5440** Photo Printer can produce prints, photos, letters and emails in a range of different sizes from conventional 6x4in prints in 27 seconds right up to panoramic sizes of 24x8ins. It can print fade resistant four-ink or six-ink prints using HP Vivera Inks.

Aimed at family users, the **HP Deskjet 5940** can be used for printing a range of formats, including photographs, cards, address labels and documents, offering print speeds of 30ppm (mono) and 24ppm (colour).

The HP Deskjet 5440 will retail for £59.99 and the HP Deskjet 5940 will cost £79.99.

Find out more at **www.hp.com/uk** or by calling 0870 010 4000.

Picture Mate100

The PictureMate 100 is the latest in Epson's portable printer range.

Retailing at £99.99 it can produce borderless 6x4in prints in 91 seconds that can be previewed on a 1.5in colour LCD screen where a selection of frames and filters can be added. Users can print from a memory card, a Pictbridge compatible camera or from a mobile phone using an optional Bluetooth adaptor. Portability is enhanced with a carry handle and an optional battery pack.

Designed to accompany the printer is a PicturePack containing ink and paper for 135 prints at 22p each.

For details, visit **www.epson.co.uk** or call 0800 220546.

Epson Scanning Trio

The Perfection 4490 Photo is one of three scanners released by Espon.

With a resolution of 4800 x 9600 dpi, the **4490** incorporates a Transparency Unit that can scan four 35mm slides, one medium format film (up to 12x9cm) or twelve 35mm frames. Retailing for £199, it is billed as the 'first scanner in its class to feature Digital ICE technology' for removing the effects of scratches and dirt from film. It can distinguish between mono and colour, and positive and negative film.

The £79 **Perfection 3490** and £99 **Perfection 3590** have a scanning resolution of 3200x6400dpi and offer USB 2.0 image data transfer. Supplied film holders enable the 3490 Photo to scan three mounted slides or 35mm film at once. It features a preview mode and can distinguish between b&w and colour, and positive and negative film.

The Perfection 3590 Photo includes an Automatic Film Loader that can be used to scan a strip of 35mm film composed of 6 frames.

Visit www.epson.co.uk or call 0800 2205446 for more about the Perfection Photo scanner range.

Five Canon Multifunctionals

Canon has introduced five multifunction devices into its PIXMA range.

The £69 **MP150** and £99 **MP170** replace the MP110 and MP130. With a print resolution of 4800x1200dpi, prints can be obtained from media cards and Pictbridge-compatible cameras. The 6x4in print speeds are 55 secs and both offer a scanning resolution of 1200x2400dpi.

Retailing at £149, the 2-picolitre **PIXMA MP450** can print at 4800x1200dpi; the scanning resolution is 1200x2400dpi.

The **MP500** has a 1-picolitre print head with a resolution of 9600x2400dpi and can produce 6x4in prints in 51 seconds from a range of sources. Its scanning resolution is 2400x1200dpi.

The **MP800** can produce 6x4in prints at a rate of 36 seconds. The five-ink, 1-picolitre device has a resolution of 9600x2400dpi and can print from memory cards or from a mobile phone through an IrDA or Bluetooth connector (with optional BU-20 adaptor.) Pictures can be reviewed on the 3.5in LCD, which can be used for cropping photos. The MP800 also includes a Film Adaptor Unit.

The MP800 should be out in November for £279; the others will be out in October. See www.canon.co.uk or call 08705 143723.

Have fun, win a Nikon!

Take a digital photo of this month's Thames Festival in London on September 17- 18th and you could win a Nikon Coolpix 8800 in their photo contest.

Events will include the Great Trafalgar River Race (with 300 boats), a night carnival and a series of musical events. Find out more at www.thamesfestival.org

Image: Kelvin Webb

WHAT DIGITAL CAMERA Next Month

Panasonic FZ30

The world's best superzoom digicam just got better

PLUS

CAMERA TESTS

KonicaMinolta Dimage Z6
Nikon Coolpix 5900
Panasonic Lumix LX1
Samsung Digimax i5
and more.....

ACCESSORIES

Adobe Elements 4.0
Corel PaintShop Pro X
Kodak 1400 printer
Flashgun Round-Up

INTERVIEW

Pulitzer Prize winning photojournalist David Leeson talks to WDC

FREE! 24 PAGE SUPPLEMENT LOW-LIGHT PHOTOGRAPHY

- Shooting at night
- Capture fireworks
- Low-light tips
- Flash

ON SALE 7TH Oct

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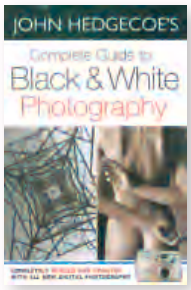


John Hedgecoe's Complete Guide to Black & White Photography

John Hedgecoe
Collins and Brown £9.99

Prolific photographer John Hedgecoe has written a wide selection of photography books. First published in 1994, the Complete Guide to Black and White Photography has been updated for 2005 to include a section on digital.

The layout is simple; each individual topic has two pages and accompanying the text are some stunning annotated photographs.

Basic principles including the tonal range, high key and low-key lighting, texture and filters are covered in the first chapter, before the book examines in detail the photographic genres of Still life, Portrait and Landscape.

Focusing on film processing 'The traditional darkroom' isn't really relevant to digital photographers – apart from those with a strong interest in film.

At a mere 12 pages 'The digital darkroom' chapter is disappointing; while useful, the information on choosing the right equipment and using an image editor is very limited.

Complete Guide to Black and White Photography is immensely readable, utilising striking imagery. However, covering such a vast topic as black and white photography in 160 pages means some areas are very brief and, while a useful introduction to shooting mono, it does lack depth. **HB**

Illustrations © John Hedgecoe 2005

Digital Imaging: Essential Skills

Mark Galer and Les Horvat
Focal Press
£21.99

From advice on tools, file formats, digital kit and computer hardware, to guidance on RAW images, the first half of the tome is packed with background info, interspersed with colour diagrams and activities. Mainly referring to Photoshop Elements and CS2, the easy to follow editing tutorials are accompanied by a CD and supporting website. Digital workflow and archiving are also covered. **HB**

Complete Digital Photography

Tom Ang
New Holland
£17.99

Getting started with digital photography can be daunting. This book from established photography writer Tom Ang provides a suitable introduction to the entire digital imaging process. If offers advice on choosing the right cameras and software, and using them effectively to get the most out of your photographs. The straightforward language and uncluttered interface make this a useful book for beginners and anyone who is just confused about how to use their camera effectively. **HB**

John Blakemore's Black and White Photography Workshop

David and Charles
£23.50

Written by influential photographer and teacher John Blakemore, this is a detailed – and often heavy going – look at the process of black and white landscape and still life photography. Blakemore's use of film renders some of the technical information extraneous to the digital photographer; however, each picture is accompanied by a caption that provides a fascinating insight into the reasoning behind the shot. His in-depth exploration of flower photography, 'The Tulip Journey' will be captivating for die-hard Blakemore fans or those serious about still-life photography. **HB**

Top: One of the infamous Cottingley Fairy photographs
Above left: Tony Ray Jones 1941-72 Glyndebourne Gelatin silver print 1967
Above middle: Trafalgar Square by Talbot, 1843/44
Above: Iago, study of an Italian, Julia Margaret Cameron, 1867

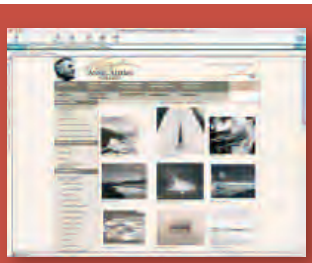
SURF

www.nmpft.org.uk/photography/home_collection.asp

National Museum of Photography, Film & TV

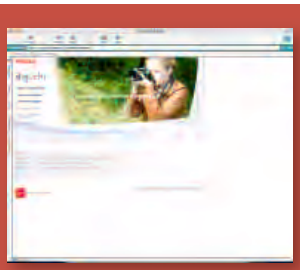
Located in Bradford, the National Museum of Photography, Film, and Television attracts three quarters of a million visitors every year. Many of the photos from the museum's archive are available to view online and are well worth perusing for anyone interested in the origins and development of photography.

Comprising of images from three national collections, scores of the images from the 'Photography' section are fascinating historical documents from key periods of the 20th century. From the discovery of Tutankhamen's tomb in 1916 by the Earl of Canarvan from the Royal Photographic Society's archives, to sombre pictures by anonymous photographers depicting life on the front line during World War One from the Kodak collection. 'Kodachromes' contains examples of early colour photography and the Photographic Advertising Limited Archive exhibits stock images used within the early days of advertising along with fascinating (and often amusing) explanations of the concept behind them. The search facility isn't particularly effective; however the website is straightforward to use and photographic prints are available to buy from Memory Prints for under £10. **HB**



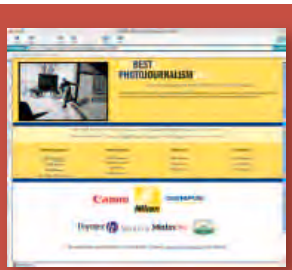
www.anseladams.com

Run by the family of US photographer Ansel Adams. Although geared towards the commercial aspect - specifically selling original photographs and prints - a selection of Adams's work is displayed online and is worth visiting as a stunning example of superlative landscape photography. The site also contains work by contemporary photographers. **HB**



www.digital.pentax.co.jp/en/special/digiichi

Last issue we brought you news of a dedicated DSLR website from Canon. Digiichi is Pentax's equivalent. At time of press some sections were still under construction, but it covers the basic functions of a DSLR. While perhaps less user-friendly than Canon's site, it is worth a visit, especially for Pentax users. **HB**



www.nppa.org/competitions/best_of_still_photojournalism/2005

This US-based site contains the winners and runners up from the Best of Photojournalism 2005 competition. In its 4th year, it rewards stills photography, photo editing, websites and television from around the world. Encompassing sports, nature, news and the arts there are a host of photos guaranteed to tug your emotions. **HB**

KONICA MINOLTA DYNAX 5D

quick view

PRICE £600 (body only)

- SENSOR: 6.3MP/6.1MP effective
- SHUTTER SPEED: 30-1/4000sec, bulb
- ISO: ISO 100-3200
- EXP MODES: Auto,P, A, S, M, Sc
- FLASH: GN 15m (ISO200), hotshoe
- VIEWFINDER/MONITOR: Opt/2.5" LCD
- OTHER: CF 1&II, 3 Colour space, PictBridge, USB 2.0, AntiShake CCD
- POWER: Li-Ion
- DIMENSIONS/WEIGHT: 130.5 x 92.5 x 66.5mm/590g

6 mega pixels

TAKE THE 360° VIRTUAL TOUR
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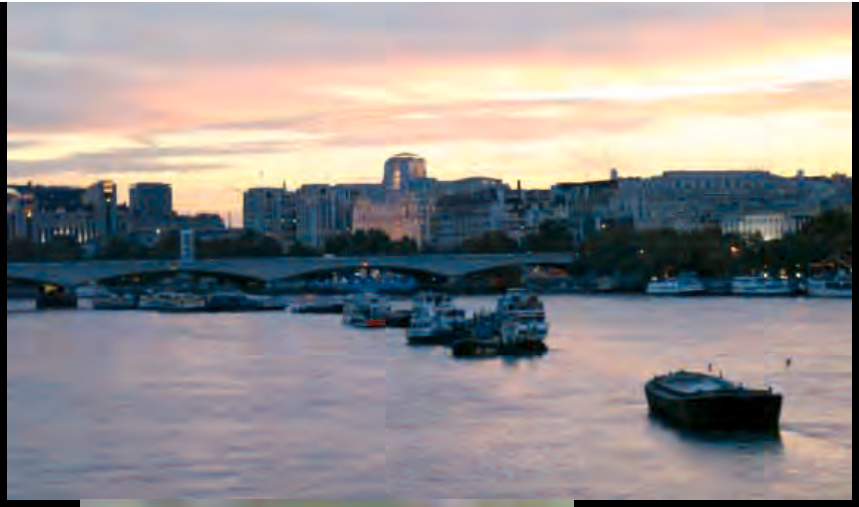
www.whatdigitalcamera.com

Shaken NOT Blurred

The affordable Dynax 5D is Konica Minolta's second consumer digital SLR after the excellent 7D. Is it a work of art? **Jamie Harrison** finds out

WHAT DIGITAL CAMERA choice



Above: The 5D can capture very smooth and subtle tones

Above: Despite the ISO 3200 setting, there is remarkably low noise

Below: There's plenty of detail captured, and colour is very good

Konica Minolta Dynax 5D

One of the best things about the latest round of cameras coming from Japan is how much technology is being incorporated while prices continue to fall. Konica Minolta, or in the past Minolta, was always at the forefront of this, even going back to its early autofocus film SLRs of the 1980s. The Dynax 7 SLR had some fantastic unique features, including an LCD data panel on the back, much as digital cameras have now.

So along comes the company's second consumer DSLR, strategically priced to compete with all the other entry-level DSLRs from Pentax, Olympus, Canon and Nikon. But it has something the others don't. Like the A-series cameras and the Dynax 7D, the new Dynax 5D has an anti-shake CCD. Most manufacturers incorporate image stabilisation into lenses, with a price tag to match. With the Konica Minolta system, you can continue to shoot in low light with your usual lenses.

The camera maintains several of the nice features of the Dynax 7D, but in a simplified format. It is far less button-heavy than the older model, a move that mirrors Konica Minolta's changes between the A2 and A200. This makes it a far less intimidating camera than the 7D, but for much of the time, still as comprehensive. You just need to move to the menu to find the item.

So let's look at the camera's key features. The sensor is the same as that of the 7D, and of many of its competitors: an APS-C sized 6.3 million pixel CCD, offering 6.1 million effective pixels for image capture. This is backed up by an Advanced LSI high-speed image processor, and Konica Minolta's CxProcess III, which the company claims renders fine image detail and good colour rendition. The CxProcess III system works on four key elements of the image: sharpness, colour, gradation reproduction and noise reduction.

The sensor is mounted on the Anti-Shake cradle, which counteracts the effects of camera shake at low shutter speeds by making tiny movements along the horizontal and vertical axes. Konica Minolta claims this allows the user 2-3 stops slower >>

see more on the web

Download our Dynax 5D test images on our website,

www.whatdigitalcamera.com

top

The camera is a little boxy in design, particularly when viewed from the top

front

The low profile pentaprism is the result, in a completely new mirror and reflex design

side

The pull flash rises from the pentaprism. On the side is a remote control plug and switch for AF/MF

up against

CHECK OUT THESE SIMILAR CAMERAS IN OUR PRICE COMPARISON BEFORE YOU BUY

NIKON D70S

£600

CANON 350D

£540

PENTAX *IST DL

£550

buying guide

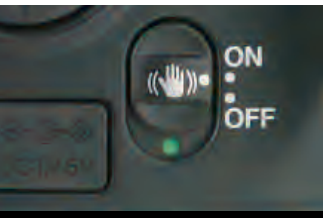
TURN TO PAGE 126 FOR OUR EXTENSIVE BUYING GUIDE
WE'LL HELP YOU TO CHOOSE THE RIGHT CAMERA AT THE RIGHT PRICE

Dynax 5D

VIEWFINDER
The field of view is 95%, which is average, and shooting information is fairly limited, but is shown clearly on the LCD

LCD MONITOR
With a 2.5inch diagonal, the screen is big, and shooting information is clear. The menu text is quite small though

FUNCTION
Konica Minolta has taken away the external buttons and added the function button, to access such things as the metering and AF buttons, as well as digital effects and custom modes



anti-shake

Better than pricey image-stabilisation lenses, Konica Minolta's Anti-shake CCD means you can shoot in low light with your usual lenses

shutter speeds. It's not just in low light where this might come in handy though; I used it in bright light at 1/30sec when using a small aperture, and users of telephoto lenses will also benefit.

Like the 7D, the 5D has a large and bright 2.5inch LCD screen on the back, with all of the shooting information displayed in clear white on blue text. An auto orientation system will display this information in horizontal or vertical format, depending on the orientation of the camera. I remember first seeing this on the 7D and being impressed – it's a simple thing, but a cool little touch.

Where the 5D strays into new territory from its big brother, is the inclusion of five scene modes, or what Konica Minolta calls Digital Subject Program Selector. Situated on the mode dial, the modes include portrait, sports, landscape, sunset and night. Alternatively you can create your own set of digital parameters, eg sharpness, tones etc, and save up to ten as custom settings. High and low key subjects can be optimised using a zone-matching function. This essentially works like EV compensation, but without the guesswork. The feature is found in the ISO menu, and sets high-key subjects at ISO 200 and low key at ISO 80. As well as controlling exposure, the zone matching also optimises the contrast for the scene.

Despite its entry-level looks and price, the 5D maintains a welcome amount of white balance control. There's a

> 'The zone-matching function will optimise high and low-key subjects'

choice of auto white balance, and manual presets covering the usual range of daylight, shade, tungsten and so forth. Alternatively, there's the option to measure and set manual white balance, or set the colour temperature in degrees Kelvin. If that's not enough there's also WB bracketing and fine tuning. Not bad for a £600 camera.

Among the more conventional specifications is a shutter range of 30sec to 1/4000sec and Bulb for longer exposures. The sensitivity range also covers a decent ISO 100-3200, with noise reduction as an option to hide some of the more intrusive speckling that can occur at high ISOs or long exposures. The metering sensitivity operates over +1 to +20EV, while the AF has an AF assist lamp to help in darker conditions.

For continuous shooting the 5D offers up to 3fps over 10 frames, which looks a bit disappointing compared to some other cameras, but actually the shooting rate is better in practice. I certainly got more than 10 frames of best quality JPEGs in the initial burst, and the buffer clears quickly so continuous shooting can be continued, just with short breaks every now and then as the buffer clears. Those breaks are short too, only a second or two. It's certainly an improvement on the 7D. In fact, during a one-minute burst, I rattled off 162 frames, based on manual focus and exposure at 1/4000sec, using a San Disk Ultra II card, which is most impressive.

Other features of note include auto exposure bracketing and exposure compensation over ±2EV, with 1/3-stop increments. Metering is via a 14-segment honeycomb cell, with centre-weighted and spot metering options. Of course, as we've come to expect, the camera has a built-in flash, in this case a pull-up type in the pentaprism.

Speaking of the pentaprism, the final new feature built into the 5D is a newly developed roof-mirror type pentaprism, with a forward-bend finder optical system. What this all leads to is a low-profile pentaprism on the top of the camera, helping to keep the camera small.

image quality

On the whole, I found the 5D very capable, with some very nice results gained. In aperture and shutter priority modes, which are my preferred settings, the camera produces some really good images, that need little tweaking. The meter system got the exposures spot on most of the time, only failing in tricky lighting or on subjects such as light or dark ones. Exposure compensation soon fixes this problem. Scene modes can be hit and miss, with exposures verging on the light side sometimes: bright skies for example can blow out easily, even if they look blue in reality.

This isn't a major problem; it happens rarely, but it does happen.

On more normal images, the camera does a very good job, and really does maintain some fine detail. It also does a good job of capturing the quality of light, something I've found with Konica Minolta in the past, even the compacts. By this, I mean the images reflect the colour of light throughout the day, so the afternoon light keeps that warm yellow glow in the images.

The camera has one of the broadest ISO ranges available, but the processor copes well with the noise at high sensitivity. Yes it's there, but it's actually not bad, and ISO 3200 is as good as ISO 1600 or even ISO 800 on some other cameras.

As for sharpness, the camera is capable of producing pin-sharp images in JPEG mode, but RAW will need a little help. This isn't unusual, in fact it's expected. Handheld images are helped by the Anti Shake CCD, but don't be blasé, you still need to keep the camera as still as possible while using it. I tried a few deliberately careless shots, and they still came out blurred.

WHITE BALANCE

An area the 5D seems to excel at is its interpretaion of the light, with a nice White Balance system. If the AWB gets it wrong, the camera offers a choice of WB bracketing, manual WB exposure and fine tuning using a colour temperature scale in degrees Kelvin. This allows you to easily capture the subtle changes in colour as the sun goes down. This image is one of a series taken with WB bracketing and is the best of the set, which also happened to be the image with no adjustment made.

Dynax 5D

WHAT DIGITAL CAMERA

LENS
The kit camera comes with a Konica Minolta AF DT 18-70mm lens. Like most kit lenses, it is not the best built lens in the world but it is digitally balanced

MODE DIAL
One of the major additions to the camera over the 7D is its inclusion of scene modes, conveniently placed in the mode dial

WHITE BALANCE
What used to be a rewind dial is now the White Balance control, which is pretty comprehensive and cleverly placed

HANDLING

That size is an important feature of the camera. In comparison with the 7D, the 5D is small. It's still larger than the Canon EOS 350D however, and sits nicely in the hand. The kit lens is a new AF DT 18-70mm, which is also noticeably smaller and lighter than previous Konica Minolta lenses. Unlike the standard Minolta lenses, the DT lenses are newly developed to match digital cameras, with a smaller image circle and optimised optics.

The camera and lens is a nice combination, both in terms of the lens focal length and how they feel, offering good balance and comfort. The plastic body is still weighty enough to feel both substantial and solid, and the metal lens mount is another nice little touch that instils one with a sense of security and quality.

Like other (as they were) Minolta cameras, the 5D is quite angular, without the softening curves of, say, Canon, but the grip is comfortable, with plenty of purchase. The location of the controls, such as the shutter release button and command dial, are within easy reach of the forefinger, while the back of the camera is remarkably uncluttered, especially considering Konica Minolta's heritage.

'Information displayed on the LCD is relevant and accessible'

The left side of the top plate is dedicated to white balance, with a mode dial and central button situated where the film rewind lever would have been in the old days. As an aside, I appreciate the way camera manufacturers have mostly stayed true to film cameras, and the ingenious ways they have incorporated new functions into traditional design and form. This WB mode dial is a prime example and is very cleverly done. Switching between WB modes and options using the dial is one of the easiest ways I've come across yet.

The viewfinder is very reasonable, showing 95% of the scene, and while not the brightest I've used, isn't diabolical either…just average. Viewfinder information is fairly limited, with little of the information shown on that of the Nikon D2Hs, for example. But there's enough for most users, and everything else can be seen on the back LCD. This is, for me, one of the Dynax camera's main assets. At 2.5ins, it's as big as you need and the information displayed on it is both relevant and accessible. And I still love the way it switches to remain readable in landscape and portrait shooting formats.

The rest of the back plate is as uncluttered as the top plate, and certainly less so than the 7D. This leads to a very friendly looking camera, with plenty of space for spare finger and thumbs.

The menu system is also well designed, though text is fairly small, which may be a problem if you're longsighted. On the plus side, the display in shooting mode is very clear and comprehensive.

A function button, marked Fn, offers a quick way to access many of the features that were on the outside of the 7D. So to change AF modes, AF area and metering mode, you need to press this and use the navigation button to make the changes. You can also change the digital effects here, with settings for colour, saturation, contrast and sharpness.

The colour settings in particular are interesting. Within the sub menu, actually more of a scroll bar, are scene modes; from here you can adjust your scene mode settings. This is, as far as I remember, the first camera to allow this. There are also options to change the profile between AdobeRGB, sRGB and Embedded AdobeRGB.

Personally, I would like image size and quality to be placed within the Function menu too, because having to use the main menu is a bit slower. It's not a total hardship though, and is something I can live with.

Speaking of image files, the camera offers JPEG and RAW recording, with an option to capture both simultaneously.

VERDICT

Konica Minolta has once again broken the mould and produced a technically advanced but surprisingly simple camera. It is essentially a stripped-down 7D, but has some nice new additions, not least its continuous shooting capability, which really impresses. Bonus points also go to the white balance system which is comprehensive and accurate, as well as having really well-designed and placed controls. In fact, the whole placement of the buttons of the camera are well thought out.

Image quality doesn't disappoint either, especially at the higher ends of the ISO range, such as ISO 3200, which although noisy, is less so than other cameras at ISO 1600. In short, this is a good addition to the Konica Minolta range and offers something different to the consumer than many of the other low to mid-range DSLRs, which can often be samey. WDC

specifications

MANUFACTURER	Konica Minolta
MODEL	5D
PRICE	£600 (body)
SENSOR	6.3MP/6.1MP effective 23.7x15.6mm CCD sensor 3008 x 2000 pixels
MAX PRINT SIZE	15.4x10in @200ppi
LENS	Minolta A mount/1.5x mag
SHUTTER SPEED	30-1/4000sec, bulb
ISO	ISO 100-3200
EXP MODES	Auto, P, A, S, M, Sc
FLASH	GN 12m (ISO100), flash exposure comp, rear curtain sync, slow sync, hotshoe, wireless control
SCENE MODES	Landscape, Portrait, Sports, Night, Twilight, Custom
METER	14seg TTL , spot, centre- weighted, EV 1-20, ±2EV comp
WHITE BALANCE	Auto, presets, custom, WB bracket, Kelvin
FOCUS	TTLphase detection, 9-point selectable AF or manual, single, continuous, predictive, AF assist
VIEWFINDER	Optical reflex with roof mirror pentaprism, 95% coverage
MONITOR	2.5" TFT, 115000 pixels
CONNECTION	USB 2.0 Full Speed
FILE	RAW, JPEG, RAW + JPEG
FILE SUPPORT	EXIF 2.21, DPOF 1.1, PictBridge
VIDEO OUTPUT	NTSC/PAL
POWER	Rechargeable Li-Ion NP400
STORAGE	CF I&II
DIMENSIONS	130.5 x 92.5 x 66.5mm
WEIGHT	590g (exc battery)

scores

PROS: Anti-shake, white balance, ISO range, size

CONS: Some problems with high-contrast scenes using scene modes

features	18
ease of use	17
image quality	18
design	17
value	19

89%

OLYMPUS MJU DIGITAL 800

quick view

PRICE £299

- **CCD** Total 8.3MP, Effective 8.0MP
- **LENS** 38-114mm f/2.8-4.9
- **SHUTTER SPEED** 4-1/2000sec
- **EXPOSURE MODES** P,A,S +19 scene
- **ISO** Auto, 64-1600
- **FLASH** Built-in, Auto plus 3 modes
- **VIEWFINDER/MONITOR** None/ 2.5" 215,000 pixel TFT
- **OTHER** 640x480 15fps Video, xD card and 19MB int
- **POWER** Lithium ion cell
- **DIMENSIONS/WEIGHT** 103x58x33mm/181.5g

8 mega pixels

top

The mju Digital 800 has only its name, power button and shutter release on the top-plate

front

The sliding lens cap cannot be slid open when the camera is switched off

side

The Lithium ion cell hides beneath a sliding flap, which also covers the USB/AV and DC power-in sockets

up against

CHECK OUT THIS SIMILAR CAMERA IN OUR PRICE COMPARISON BEFORE YOU BUY

RICOH CAPLIO GX8

£250

scores

PROS: Image quality, LCD screen, construction quality

CONS: Left hand side backplate button visibility in bright light

features	18
ease of use	16
image quality	17
design	17
value	18

86%

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Olympus Mju Digital 800

Joël Lacey tests Olympus's compact 8MP 3x zoom model

I've tested some great Olympus cameras in the prosumer sector but have not really come across a compact or mju model that I've been able to recommend unreservedly.

Now Olympus has come up with a model that on paper at least seems to offer all things to all photographers except the really keen enthusiasts.

From a theoretical image quality point of view, the mju delivers images that are 3264x2448 in size, which should allow you to print up to 16x12 inch prints at 200 pixels per inch. My experience, thus far, of eight-megapixel models is that they have not quite offered the same levels of punch per pixel as a very good camera of a lower resolution. What I mean by this is that a good 5MP camera will give you A4 prints and bigger with no problem while most eight megapixel models will not offer you the same quality at 60% bigger.

But back to the mju. Its 38-114mm f/2.8-4.9 zoom lens works in conjunction with a focusing system that offers both macro and supermacro functions. The latter takes you closer than an inch from the front of the lens. The shutter speed range of 4-1/2000sec is wide enough for most situations. Probably the only thing missing from a specification point of view is that there is no optical viewfinder, but the public has rather voted with its wallet in terms of wanting bigger screens like the mju 800's, so this is merely a response to public demand rather than an oversight.

On the handling side there are a couple of minor criticisms I would level at the emphasis on shininess of the mju 800. The first is the background on which the four buttons on the left of the back of the camera sit. The curviness of the left hand area means you are virtually guaranteed to get light reflections from it. Unfortunately all the writing under the buttons is in white… so it all disappears. The second issue is a common one among digicams, that the light reflecting from the LCD makes the image harder to see. This is less of an issue because the screen itself is nice and bright.

Otherwise, the camera handles rather easily. Functions are generally where you expect to find them.

Exposures are universally excellent with not a single shot over two testing periods being either underexposed or overexposed. Focusing is generally excellent but there were two occasions (out of well over 100 shots) where the graduated tones on a softly lit flower head stopped the camera from establishing a focus quickly.

Lens quality is excellent, though there is a touch of barrel distortion on close shots at wideangle. But generally, the images taken were ones you would be very pleased to see on A4 borderless prints, which I suspect is the maximum size users would want to see these pictures generally being used at.

VERDICT

This is a good looking camera that feels as good as it looks. The images it produces are out of the top drawer for compact digital cameras – which is, after all, the competition it faces. Add a matte finish on the backplate controls and it would be a doddle to use as well. All in all a good performance. WDC

LCD MONITOR
The dominant feature of this camera is its huge LCD, protected by an even larger slightly too-reflective cover

MODE DIAL
The mode dial's shake reduction mode reduces the resolution from 8MP to 3MP to reduce the effects of camera shake

CANON DIGITAL IXUS 50

quick view

PRICE £319

- **CCD** 1/2.5" 5MP effect
- **LENS** 35– 105mm f2.8-4.9
- **SHUTTER SPEED** 15– 1/500 sec
- **EXPOSURE MODES** A, M, 6 scene modes
- **ISO** Auto, 50, 100, 200, 400
- **FLASH** 0.5m –3.5m (W) / 2.0 (T)
- **MONITOR** Real image optical/ 2.0-inch TFT 118,000 pixels
- **OTHER** SD
- **POWER** Lithium-ion
- **DIMENSIONS/WEIGHT** 86 x 53 x 20.7mm/130g

5 mega pixels

top

Your index finger activates the 3x optical zoom control, which does feel a bit wobbly.

front

The viewfinder, flash, self-timer lamp and micro-phone are here

side

A/V and USB connections are located under this rubber-hinged flap. The memory card and battery fit into the slot at the bottom

up against

CHECK OUT THIS SIMILAR CAMERA IN OUR PRICE COMPARISON BEFORE YOU BUY

OLYMPUS MJU 500

£280

scores

PROS: Sturdy build, quick operation

CONS: Limited manual features, camera shake possible

features	16
ease of use	18
image quality	16
design	18
value	17

85%

see more on the web

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Canon IXUS 50

Hannah Bouckley looks at Canon's chic 5MP compact

With its stylish metal body the IXUS 50 looks and feels like a quality product. The only gripes I have with the build quality is the strength of the hinges on the battery and connections compartments.

Thanks to the small ultra-refractive 3x optical lens the body is smaller than a pack of cards, so space around the back is limited. Fortunately the controls are raised, ensuring they can be pressed easily.

Thanks to the Digic II processor the IXUS 50 is a fast little beast; start-up is a swift one-second and shot cycle times are just under 1.5-seconds for JPEGS taken at maximum image size of 2592x1944 pixels and best quality (SHQ) without flash. I managed to capture over 100 images without the buffer memory becoming full or noticeably slowing down.

For quick access to the IXUS 50's feature set, press the function button in the middle of the four-way controller and use the arrow keys to select an exposure mode. Options include: Automatic manual/program, Digital macro, Portrait, Indoor, Underwater and My Colours. In manual mode, adjustments are limited to sensitivity, white balance (including manual), metering and exposure compensation. There is no option to adjust the aperture, although Long Shutter and Kids & Pets utilise slow and fast shutter speeds respectively.

Beginners will find the IXUS 50 fairly easy to use. The dual memory system can take time to become accustomed to, though for simplicity in auto mode the menu options are limited to image size and quality.

Despite its decent size, the LCD can prove tricky to view in bright sunlight and – however careful you are with stray fingers – the screen can become smeared.

The IXUS 50 utilises a 9-point AiAF system that is quick and accurate at detecting and locking onto a subject, assisted in dark conditions by an AF assist beam. You can shoot AVI movies up to 640x480 pixels at 30 and 15fps on the IXUS 50 until the memory card is full (when a high-speed card is used), and save memory space by making rough edits in camera. The optical zoom can be utilised when shooting standard movies, but is disabled for the other movie modes.

Images are well exposed and the metering accurate, however they can appear to be on the soft side and a considerable proportion of our images were blighted by camera shake, so careful reviewing is recommended. Noise creeps in at ISO 100 particularly in the red and green channels, becoming more noticeable (though usable) at ISO 200 and worsening at ISO 400. Results in macro mode are sharp and well defined, displaying accurate colours, while skin tones are pleasing. The fill-in-flash distance is perfectly adequate, although it utilises automatic ISO, so results can be noisy.

VERDICT

While lacking advanced features, this sturdy compact is a great little point and shoot with basic manual features to enable some experimentation. Results are generally pleasing, though camera shake can be problematic. WDC

DISPLAY BUTTON
Turn off the LCD and view camera settings by hitting the Display button

NAVIGATOR
In record mode use the up arrow to adjust the metering; in playback mode the Jump control enables you to scroll quickly through your images

NIKON D2Hs quick view

PRICE £2500

- **SENSOR** 4MP effective JFET
- **LENS** Nikon fit
- **SHUTTER SPEED** 30-1/8000sec &B
- **ISO** 200-1600
- **EXPOSURE MODES** P, A, S, M, ±5EV
- **FLASH** Hotshoe
- **VIEWFINDER/MONITOR** Opt / 2.5" LCD
- **OTHER** CF, 9fps, RAW, TIFF, JPEG, USB 2.0
- **POWER** Li-Ion
- **DIMENSIONS/WEIGHT** 158 x 150 x 86 mm/1150g

top

The D2Hs is a big beast but handles well, with good balance and well placed controls

front

The bottom right of the grip has a pair of auxiliary control wheels and shutter release button

side

Connections include USB 2.0, remote control and GPS

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CANON 1D MK II

£3000

NIKON D2X

£2700

buying guide

TURN TO PAGE 126 AND USE OUR EXTENSIVE BUYING GUIDE

WE WILL HELP YOU CHOOSE THE RIGHT CAMERA AT THE RIGHT PRICE

4 mega pixels

WHAT DIGITAL CAMERA choice

Nikon D2HS

If you want speed, you won't do better than the Nikon D2Hs. **Jamie Harrison** takes it to the racetrack

What's that? Nearly three grand for a 4MP DSLR? Well, the D2Hs is no ordinary 4MP camera. Nikon makes two versions of its top end camera, the D2X and D2Hs, the latter of which has replaced the D2H. Both are aimed at pros, but within different markets. The D2X offers quality to the social, advertising, landscape type of photographer, with a 12MP sensor. The D2Hs is about speed: of shooting and of transfer.

But I hear you ask, 'What can 4MP offer ' For a start it's good enough for newsprint which has lower lines per inch reproduction than a glossy magazine. Which brings me to exactly who the camera is aimed at – news and sports photographers. With the D2Hs, they could use the optional Wi-Fi adapter and have their photos at every news desk in the world in seconds. 100 4MP files will transfer much quicker to the news desk than the 100 12MP files of the D2X.

The D2Hs boasts up to 9fps in high-speed mode, or customised settings of 1-7fps in low speed mode. The camera buffer can hold up to 50 JPEGs so you should be able to maintain a fairly constant burst.

That buffer moves the files quickly to the card. In tests, the camera stops shooting when the buffer fills, but immediately repressing the shutter release buttons allows more high-speed shooting. Over a 1 minute burst, I needed to lift and press my finger on the shutter release button four times, resulting in 360 high-resolution JPEGs. This was based on a shutter speed of 1/8000sec – the fastest available – in manual mode, with manual focus (fixed), using a 4GB SanDisk Ultra II. Simple maths shows an average frame rate of 6fps, while EXIF indicates a 9fps true count during the sustained burst periods, even during the middle periods of the burst, when the buffer is working flat out.

The camera has a single card slot, accepting CF cards and Microdrive. The SanDisk 4GB card I used isn't fully supported, the 2GB card is the maximum, so I only achieved half the capacity of the card. Lexar WA cards up to 80x are also supported. I would usually advise using a series of smaller cards for high capacity shooting rather than relying on a single card anyway – if anything goes wrong, you'll still save some pictures.

So far I have discussed JPEG, but of course other formats are supported including Nikon Electronic Files (NEF), which is Nikon's raw format. At the time of testing this format was unsupported by Adobe Camera Raw, so I was forced to use Nikon Capture 4.2, an optional extra. The files can also be opened in Photoshop using a NEF plug-in, or with Picture Project. I'll be honest, I prefer to keep to a Photoshop workflow, and remain unimpressed by most manufacturers' Raw solutions, and Nikon's is no exception.

The camera gives you the option of shooting in TIFF, as well as a choice of RAW + JPEG options, with three JPEG compression options. Obviously the larger file size/lower compression will slow the camera down, but even TIFFs will offer a certain amount of power shooting, maintaining the frame rate for 40 frames before slowing down and stopping for a few seconds.

Speed's all well and good, but what other features distinguish the D2Hs as a pro camera? The build quality for one, which I will return to shortly.

I mentioned the top speed of 1/8000sec; at the other extreme is 30secs and B for long exposures.

VIEWFINDER
The viewfinder is bright and large, with plenty of information on display. The high viewpoint makes it easy for spectacles wearers to see the whole finder

CONTROLLER
Use this to navigate the menu, change AF points, and access image data such as histograms

LCD SCREEN
The 2.5 inch LCD is easy to see and is accompanied by Nikon's comprehensive and easy scrolling menu system

SECONDARY LCD
This is used to acces oft-changed functions such as ISO, WB, and image quality

image quality

Like other Nikon digital SLRs, the camera works best with CPU-type lenses, ideally type G or D to maintain full functionality, particularly with the 3D metering. Other AF Nikkor lenses offer full autofocus and shooting mode control, but will use the colour metering, instead of 3D matrix. Older non-CPU and manual focus lenses will lose some functions, particular Program and shutter priority modes, as well as some matrix metering functions. AI-type lenses and series E lenses should still allow colour matrix metering. Obviously manual focus lenses will not work with the AF on the D2Hs.

Let's talk about that metering system, though. The D2Hs has the new 3D Colour Matrix II first seen on the D2X and D50. This uses a 1005-pixel RGB sensor and sets the exposure on a variety of information across the entire frame. Among the information analysed is colour and distance, so a subject with a big range of light tones, for example, is compensated for. There is always the back up plan of exposure compensation (or manual exposure for purists), covering ±5EV, and auto bracketing of up to 9 frames, with increments of 1/3, 1/2, 2/3, or 1EV.

The meter's sensitivity covers 0-20EV, while ISO sensitivity covers 200-1600 with an added two stop boost. Unlike some cameras, Nikon has enabled 1/3 and 1/2 stop increments to the ISO range. For further refinement there is also centre weighted and 2% spot metering.

'The dynamic range of the pictures is very good indeed'

A fast camera needs a fast and accurate AF system. The D2Hs uses Nikon's Multi-Cam2000 module, with single area AF, dynamic AF, group dynamic AF and dynamic area AF, with closest subject focusing. What's all this mean? Basically, the AF can, in continuous shooting, track the subject across the frame, or a moving subject heading towards you, using 11 focus points, which can be selected individually, as a group or for wide areas. The camera can also select the closest subject and follow its movements. The AF is pretty sensitive too, allowing focusing over a –1 to 19 EV range.

On the processing side the white balance uses the >>

The Nikon D2Hs may only have 4 million pixels but it makes the most of those pixels. The dynamic range of the pictures is very good indeed, with good shadow and highlight detail maintained. Very contrasty images cause problems, with highlights blowing, but that's to be expected, especially with some of the almost contra jour images I took.

Colour too is excellent, with the benefits of the 3D colour matrix metering really showing through. This also shows in some of the more tricky subjects; high and low key subjects where I would expect to use exposure compensation are mostly perfect, with only the occasional failure.

In terms of sharpness, using 28-70mm and 70-400mm D lenses, the camera performs admirably. My 4GB of pictures taken at the racetrack probably held about 2GB of empty road, but the remaining images were sharp, whether panning, shooting dead-on or facing oncoming bikes. The sports pictures may have suffered from some camera shake, which I'll accept as my own fault, but when I got it right, the detail is pin sharp. The more static images prove this even more.

Noise is good too: the large pixel pitch seems to be a benefit, with even the higher ISO images remarkably noise free. The Noise Reduction option works well at ISO 1600, but as with many of these systems, can add an element of blur to the images.

WDC would like to thank Trend Control Systems and Switch Controls for the Superbike Championship corporate tickets and hospitality.

see more on the web

Download our D2Hs test images on our website
www.whatdigitalcamera.com

Image Size

4MP isn't a lot of resolution, in this day and age, so for print purposes may need to be interpolated. This image from a NEF file would only give an image size of 8x5.5 inches at 300dpi, which this magazine is printed at. However, there is still plenty of detail in the image, so slight upscaling won't affect the quality too much.

LENS
The camera accepts Nikon mount lenses, and has full functionality with CPU type lenses
FUNCTIONS
Operate flash functions, bracket-ing and drive modes from here
SHUTTER RELEASE
As befits a fast camera, the shuuter release is very responsive and quick. There's another one on the bottom right side of the camera too
LCD DISPLAY
The viewfinder info is matched on this LCD panel which shows AF points, mode, shutter and aperture, frame counter and buffer, as well as battery life

'The D2HS is built to last, with all the size and weight that entails'

1005-pixel metering sensor in auto mode, along with 5 preset manual modes with fine tuning, and a manual mode. There is also colour temperature control in °Kelvin. Further image control is set by a range of sharpening, contrast and colour modes, including two sRGB options and Adobe RGB. Hue adjustments can also be made, but as this is a Pro camera, there are no scene options.

Add-ons include a WiFi adapter, so a photographer can shoot track side for example, and stream the images direct to his laptop back in the press room, while his assistant can upload the images direct to the agency. Anyone who has been to a football match may have seen runners, collecting the memory cards from the photographers; now they sit down with a cup of tea! Of course this was also available for the original D2H.

The camera accepts Nikon Speedlites offering full control with the newer models, including multiple wireless flash control, flash compensation and so on. There is no built-in flash or PC socket for X sync type flash units. However, this is unlikely to be a studio or social camera, so the loss of the PC socket is not too frustrating. A host of specialised equipment is available including battery packs, remote controls, GPS, alternative viewfinders, as befits a Professional system camera.

HANDLING

The Nikon D2Hs is built to last, with all the size and weight that entails. Pro cameras often take a beating and are used in extreme conditions – the D2Hs can withstand temperatures of 0-40°C and up to 40% humidity.

While it's a heavy camera, it's well balanced even with big lenses, and holds very well. For portrait format shooting, there's a secondary shutter release button bottom right, accompanied by front and rear command dials to rapidly change camera settings while you shoot.

The top plate has a grey LCD, with essential shooting information, such as exposures left, buffer count, modes, focus positions etc. Much of this info is also shown in the viewfinder. The finder is bright and clear with comprehensive information. The back plate has the 2.5in LCD, with menu access and image playback. There's no live feed to the LCD obviously, but the screen is reasonably clear in average light (though suffers in bright sunshine).

The menu is complicated on initial set-up with a plethora of options, but this is generally expected on DSLRs, especially pro models. However I prefer Nikon's system to Canon's thanks to its clear submenus. Once you have your set-up preferences set though, the camera is simple and natural to use, with commonly accessed changes made through the external controls.

Using the camera at the Superbike championships really showed the power of the camera. My companion on the day, who rides a 650cc Suzuki, thought it too powerful for him! I rarely shoot sports, so the first race resulted in a lot of empty road as I attempted to keep up with the fast bikes. Within a couple of hours though, I had the camera set up better, found a good spot, and happily shot 800 pictures. The AF and fast shutter speeds stopped the bikes in their tracks. The changing light conditions meant constantly being aware of changing apertures and the viewfinder information and the clear viewpoint of the big viewfinder allowed me to track this, even with my glasses, which often obscure the full viewfinder. Similarly, changing ISO speeds, using the secondary grey LCD on the back, allowed me to keep shooting quickly when the cloud cover made ISO 200 hard to maintain.

VERDICT

The D2Hs is fast, fun and furious, and is backed by a complete professional system. However, as good as the camera is, it is still only 4MP; the Canon 1D Mk II has 8MP and still offers 8.5fps. That can make that camera seem a more viable proposition, within a very similar price bracket. However, if you're a Nikon user and need a fast reliable camera with all that Nikon can offer, the D2Hs may be right up your street. WDC

specifications

MANUFACTURER:	Nikon
MODEL:	D2Hs
PRICE:	£2500
Sensor:	Nikon DX format JFET sensor, 4.3MP total/ 4.0MP eff / 2464x1632 pixels
MAX PRINT SIZE:	12x8"@ 200ppi
LENS:	Nikon AF/ 1.5x mag
SHUTTER SPEEDS:	30-1/8000sec & Bulb
ISO:	200-1600 in 1/3 and 1/2 stop increments
EXP MODES:	P,A,S,M, ±5 EV
FLASH:	Hotshoe
DRIVE MODES:	Single, continuous 9ps over 50 frames , Custom 1-7fps
METER:	3D Colour Matrix II, spot and centre weighted average
WHITE BALANCE:	Auto, presets and manual
FOCUS:	Manual, single and continuous, dynamic AF, closest subject dynamic AF
VIEWFINDER:	Optical
MONITOR:	235,000 pixels 2.5" LCD
CONNECTION:	USB 2.0, GPS (serial), AV out, WIFI Option
FILE:	Jpeg, TIFF, RAW
FILE: FORMATS:	EXIF 2.2, DPOF
POWER:	Li-Ion with charger
STORAGE:	CF I&II
DIMENSIONS:	158 x 150 x 86 mm
WEIGHT:	1150g

scores

PROS: Good handling, image quality and system support, speed

CONS: 4MP may not be enough

features	19
ease of use	18
image quality	17
design	19
value	18

91%

OLYMPUS IR-300

quick view

PRICE £275

- **CCD** 1/2.5" 5.19MP total, 5MP effect
- **LENS** 38-114mm f3.3-4.0
- **SHUTTER SPEED** 4 - 1/2000 sec
- **EXPOSURE MODES** P, 17 Scene modes
- **ISO** Auto
- **FLASH** 0.3m-2.6m (W) 0.5m-2.1m (T) GN 6.0
- **VIEWFINDER/MONITOR** n/a/ 2in TFT 206,000 pixels
- **OTHER** xD
- **POWER** Li-ion
- **DIMENSIONS/WEIGHT** 99 x 53 x 22mm /112g

5 mega pixels

top

It takes about 1.5secs for the lens to move from wideangle to tele, though the optical zoom control feels flimsy

front

On the front are the flash, self-timer lamp and microphone

side

Attach the supplied hand strap to the eyelet on the side adjacent to the speaker

up against

CHECK OUT THIS SIMILAR CAMERA IN OUR PRICE COMPARISON BEFORE YOU BUY

PANASONIC FX8

£300

scores

PROS: Lightweight, easy to operate

CONS: No ISO controls, editing features fair, manual on CD

features	16
ease of use	17
image quality	16
design	17
value	16

82%

see more on the web

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www.whatdigitalcamera.com

Olympus IR-300

Hannah Bouckley looks at Olympus's Easy Imaging baby

The IR-300 is the second camera to be released by Olympus into the Easy Imaging System, designed for those people who want to take (and print) digital photographs without the need for a PC.

The central location of the lens gives the IR-300 an unconventional look for a modern digicam, compounded by its minimalist white body. It is incredibly light and comfortable to hold and the emphasis is definitely on simplicity; controls are minimal, providing plenty of space for your thumb on the back. By default the IR300 is set to Program mode enabling adjustments to be made to exposure compensation (+/- 2EV in 0.5 steps), white balance (five preset settings), metering, and focusing (automatic and spot). All are accessible through the menu and can be time consuming to find in a hurry; a dedicated button would be preferable though you can assign one command to the print button.

The IR-300 employs an f/3.3-4.0 Olympus lens that retracts within the camera body. However, despite the lack of external optics, the start-up of over 2-seconds isn't the fastest in its class. The iESP auto focus system with contrast detection is largely accurate, if not lightening quick. Two macro modes are found on the camera. Standard can focus as close as 10cm, while you can get as close as 5cm in Super Macro mode, though the lens is fixed at wide-angle. Results are generally sharp, with plenty of detail.

The IR-300 has a satisfactory movie mode that can capture 320x240 pixel QuickTime Motion JPEG movies with sound (until the memory card reaches maximum capacity). A digital image stabiliser helps ensure shots are steady, though the optical zoom is disabled. The built-in flash is adequate, though at 2.5m the range is rather limiting.

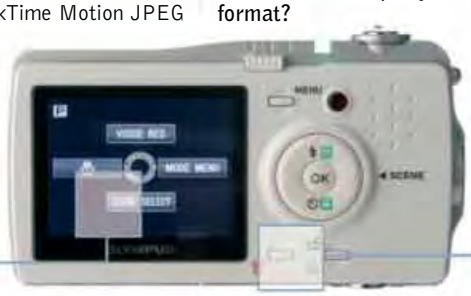
Results are pleasing; apart from the occasional burnt-out highlight, photographs are generally well exposed and the metering works effectively. Colours seem to be a touch on the warm side and unfortunately there is no facility to adjust the sensitivity.

In line with the Easy Imaging System moniker, the IR-300 offers a selection of post-shooting options; as well as displaying image information you can adjust brightness and saturation, remove red-eye, use the calendar display and sort pictures into albums. While useful, they are very basic and other cameras offer more interesting features for less money, such as HP's Real Life Technology, featured in models like the R717.

VERDICT

There is nothing to dislike about the IR-300. It takes decent photographs, is easy to operate, lightweight and has a unique design. At the same time, after testing, the overwhelming feeling is that it is a very average camera. Olympus may be aiming the IR-300 at those who want to avoid using a computer, but there isn't enough on offer to justify the price. Additionally, for a camera billed as a device that can be used without a PC, why is the advanced manual in CD format?

WDC



LCD MONITOR
The 2in LCD is tricky to view clearly in bright sun. To conserve power the screen dims when not in use, but the screen goes black when you scroll between images

PRINT OPTION BUTTON
Press this button in Playback mode to access the print, fix and composition options

FUJIFILM FINEPIX Z1

quick view

PRICE £299

- **PRICE:** £299
- **SENSOR:** 1/2.5inch CCD (Total 5.22MP, Effective 5.1MP)
- **LENS :** 6.1-18.3 (36-108mm equiv) f/3.5-8.3
- **SHUTTER SPEEDS:** 4-1/1000sec
- **EXPOSURE MODES:** P +5 scene
- **ISO:** Auto, 64-800
- **MONITOR :** 2.5inch 115,000 pixel TFT
- **OTHER:** 640x480 15fps Video, xD
- **POWER:** Lithium ion cell
- **DIMENSIONS/ WEIGHT:** 90x55.18.6mm/130g

5 mega pixels

top

The shutter release and the shooting mode (still or movie) switch are here. To the left of the logo is the microphone

front

The sliding panel opens to reveal the lens, the flash and LED panel

side

With all connections done via the cradle (the cradle connector is on the base), only the speaker slots and two screwheads are here

up against

CHECK OUT THIS SIMILAR CAMERA IN OUR PRICE COMPARISON BEFORE YOU BUY

SONY CYBERSHOT T7

£280

scores

PROS: Design, ease of use, construction quality

CONS: Limited overrides, some lens distortion at close quarters

features	16
ease of use	18
image quality	17
design	18
value	16

85%

see more on the web

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www.whatdigitalcamera.com

Fujifilm Finepix Z1

Joël Lacey tests Fuji's pocketable £300 5MP offering

Fujifilm has been making tidy little compacts for quite a while: the F440 or 610 were small and well specified. This model doesn't use the Super CCD of other Fuji style cameras but a rather more 'traditional' 5MP sensor. Shutter speeds run from one second to 1/2000sec, there's a 3x zoom equivalent to a 36-108mm lens in 35mm film camera terms and there are 3 pre-set apertures of f/3.5, f/5 and f/8.2.

Exposures are by means of a 64 zone through the lens metering system and focus is also of the TTL variety using a contrast detection system. The lens can focus as close as 8cm in macro mode and goes from 60cm to infinity in normal shooting mode.

In terms of handling, the Z1 is pretty easy to use. There are five scene modes, a program mode and a rather inappropriately named manual mode. This last is really just the program mode again but it lets you override the white balance, set exposure compensation and change the AF mode from multi-spot to central spot AF.

There's another mode that stretched the bounds of accuracy in the English language called high speed shooting mode. This is available in all the other shooting modes and it sets the focus to a mid-point , thus eliminating the time taken to focus the lens. 'No AF' or 'Pan-Focus' mode might be a bit more accurate term for it.

The camera is powered by a very slim Lithium Ion cell with a rating of 750mAH, which it is claimed by Fuji is enough for 170 pictures.

The controls that there are (with the exception of the shutter release and the still/movie mode switch) are all to the right of the 2.5 inch LCD. The zooming rocker switch sits at the top right of the back of the camera. Below this are two buttons (the play and Finepix buttons), a fourway controller around a menu button and finally a display button that alters how the image is displayed and how much information there is on it. As well as providing navigation around the menus, each of the positions of the four-way controller also has a second function: flash modes, macro mode, display brightness and self-timer.

The No-AF mode notwithstanding, the Z1 is pretty nippy, being ready to shoot about a second after switch on. The focusing is in fact quite quick anyway, although the Z1 is a little slow in terms of time between shots. Flash recharging also slows the Z1 down significantly.

In image quality terms the Z1 is a very good if unexceptional performer. There is a hint of barrel distortion at the lens's wideangle setting and the focusing needs to be set to single frame for any action shots.

VERDICT

This camera is aimed at those who want to take decent pictures easily and while looking good when doing it. On that level there really is not much to fault the Z1 on. And it comes in silver or black. **WDC**

LCD SCREEN
On the 2.5in 115,000pixel LCD, images can be reviewed and zoomed in on using the play and lens zooming buttons

FINEPIX BUTTON
This gives access to three commonly used features: resolution setting, ISO setting and colour mode (standard, high colour or black and white)

PENTAX OPTIO SVi

quick view

PRICE £250

- **CCD** 1/2.5" 5.4/5.0 MP
- **LENS** 36-180mm (equiv) f/2.8 – 4.7
- **SHUTTER SPEED** 4-1/2000 sec
- **ISO** A, 50, 100, 200, 400
- **EXPOSURE MODES** P, AP, SP, M, 12 scene modes
- **FLASH** 0.12-4.2m (W), 0.6-2.5m (T)
- **VIEWFINDER/MONITOR** na/1.8-inch TFT 118,000 pixels
- **OTHER** SD, nine filters
- **POWER** Li-ion
- **DIMENSIONS/WEIGHT** 91.5x56x28mm/165g

scores

PROS: Feature set, Pentax lens

CONS: Plastic tripod bush, fiddly mode dial

features	18
ease of use	16
image quality	17
design	16
value	17

84%

5 mega pixels

Pentax Optio SVi

The Svi boasts a good lens, finds **Hannah Bouckley**

The SVi is the latest in what seems like a very (very) long line of small and sleek compacts from Pentax.

Constructed from aluminium it's a fairly lightweight camera. Space is more prevalent than on the S5v due to the slightly smaller 1.8in LCD screen that can be hard to see clearly in bright sunlight. However, the well-positioned viewfinder is an adequate alternative.

One of the SVi's highlights is the 36-180mm 5x optical zoom lens, enabling you to get closer to your subject than most conventional compacts.

Access the Picture (scene) and manual exposures modes by turning the small (and rather awkward) mode dial. Unfortunately instead of having individual positions on the dial you have to initially select manual, aperture or shutter priority from within the menu system and use the 4-way controller to make adjustments. Other features include a live histogram, AVI movies of 30fps and macro shooting from 3cm.

Image quality is pleasing, yielding vibrant colours that are well saturated. Unfortunately, noise is visible in dark areas even at lower ISO levels of 50 and 100. It can be clearly seen in all channels at ISO 200 and is considerably worse at the highest sensitivity level of ISO 400. On occasion, highlights can appear to be burnt out.

VERDICT

Not the most user-friendly camera, however it is a good-looking compact with an impressive lens and feature set that is suitable for beginners and more serious photographers. WDC

PENTAX OPTIO S5Z

quick view

PRICE £250

- **CCD** 1/2.5" 5.25 MP total /5.0 MP effective
- **LENS** 35.6 - 107mm (equiv) f/2.6 – 4.8
- **SHUTTER SPEED** 4-1/2000 sec
- **ISO** A, 80, 100, 200, 400
- **EXPOSURE MODES** P, 15 scene modes
- **FLASH** 0.2-3.5m (W) 0.2-3m (T)
- **VIEWFINDER/MONITOR** None/2.5-inch TFT LCD
- **OTHER** Pictbridge, SD, 9.3Mb int
- **POWER** Li-ion
- **DIMENSIONS/WEIGHT:** 83x52x21.5mm/120g

scores

PROS: Wide range of scene modes, small dimensions

CONS: Plastic tripod bush, LCD hard to see in bright light, slow start-up

features	16
ease of use	16
image quality	17
design	17
value	17

83%

5 mega pixels

Pentax Optio S5Z

Hannah Bouckley looks at Pentax's miniature marvel

Constructed from aluminium, the stylish S5z has playing card-esque dimensions. The camera utilises Pentax's Sliding Lens System, and the lens retracts for start-up in three seconds – much longer than others in its class.

In common with many similar compacts, space is limited at the back; there is just enough space to rest your thumb, though the buttons may be a touch on the small size. The S5z feels quite tough, though the door protecting the memory card and battery is flimsy and unfortunately the tripod mount is plastic.

Despite a smattering of manual features such as ISO and exposure compensation, Pentax is clearly aiming the camera at point and shoot users; there's an impressive 15 scene modes. While it is a good size, the LCD screen is quite hard to see in bright sunlight – even when the brightness is adjusted. The lack of a viewfinder also makes it hard to check framing. The TTL 7-Point Auto Focus system is quick and accurate. Super Macro Mode can focus from 6cm away; however I found the focusing distance was often longer and it takes slightly longer to achieve clarity. The Continuous Shooting mode is slow to use and the screen doesn't refresh as quickly.

Photos have vibrant colours and metering is effective. Shots are generally well exposed though highlights can appear burnt out. Noise isn't much of a problem at lower ISOs, but ISO 400 should be avoided.

VERDICT

The S5z is capable of producing good photographs though it isn't as fast as some other cameras. WDC

HP PHOTOSMART M22

quick view

PRICE £83

- **SENSOR:** 1/2.5inch CCD (Total 4.1MP, Effective 4.05MP)
- **LENS:** 6.1mm (37mm equiv) f/2.8-6.5
- **SHUTTER SPEEDS:** 15-1/1800sec
- **EXPOSURE MODES:** P +8 scene
- **ISO:** Auto, 100-400
- **FLASH:** Built-in, Auto plus 4
- **VIEWFINDER/ MONITOR:** None/ 1.5inch 61,600 pixel Active Matrix
- **OTHER:** 320x240 24fps Video, SD/MMC, ±3EV in 1/3EV steps
- **POWER:** 2xAA
- **DIMENSIONS/ WEIGHT:** 96 x 29 x 49mm/120g

4 mega pixels

scores

PROS: Ease of use, size

CONS: Limited features, slow, digital zoom only

features	14
ease of use	17
image quality	16
design	17
value	16

80%

HP Photosmart M22

HP's pocketable M22 comes under **Joël Lacey**'s scrutiny

HP has long been a name in digital imaging. The company has experience in scanners, printers and therefore optics and colour management.

This hasn't always translated into good looking, excellent quality cameras, though, particularly at the lower end of the company's range. Spec is relatively simple and the M22 looks stylish, although I'm not convinced that the satin finish will survive even mildly rough treatment. This is a bit of a rarity in today's market in that it doesn't offer an optical zoom, merely a selective cropping function. Displaying great honesty, the HP shows the pixel count dropping as you keep you thumb zooming in. At maximum zoom you get a throbbing 0.1, count'em, 0.1 megapixels in your image. In other words, really a triumph of hope over expectation in the image quality stakes.

In general image quality terms, the M22 is actually rather good. It delivers smoother images than many other models of this price and is good on exposure and focusing, to a point. That point is the rather uninspiring minimum focus distance of 20cm.

Ease of use is the name of the game, though, and if you're looking for a simple-handling 4MP, the M22 shouldn't disappoint. Using it is a thinkless task.

VERDICT

If you think you'll never need a zoom and are content with very little in the way of control, then the HP fills a no-nonsense niche. While a little limited for my taste, the M22 nonetheless delivers in image quality. **WDC**

HP PHOTOSMART M417

quick view

PRICE £110

- **CCD** 1/2.5" 5.36 total /5.19 MP effective
- **LENS** 6-18mm (36-108mm equiv) f/2.9-4.9
- **SHUTTER SPEED** 2-1/2000sec
- **ISO** Auto, 100-400
- **EXPOSURE MODES** P +7 scene
- **FLASH** Built in
- **VIEWFINDER/MONITOR** none/1.8inch 130,000 pixel Active Matrix
- **OTHER** 320x240 24fps Video, SD
- **POWER** 2xAA
- **DIMENSIONS/WEIGHT:** 96x29x49mm/120g

5 mega pixels

scores

PROS: Resolution, AA batteries accepted

CONS: Unspectacular image quality, slow

features	16
ease of use	16
image quality	16
design	15
value	15

78%

HP Photosmart M417

Joël Lacey gets to know HP's chunky 5MP compact

You do wonder whether there's a machine at HP's head office that deals out random model names. This 3x optical zooming five-megapixel model is the M417. A near identical M517 is also available – it has a larger LCD screen!

In addition to less than transparent naming, HP has a nasty tendency to 'big up' the digital zooming ability of its models. This camera offers 7x digital zoom. Even 2x digital zooming is too much.

On other levels the M417 has what most point-and-shoot consumers want and need. Namely, it has a good range of shutter speeds, some user control, and an effective image-processing system using HP's Adaptive Lighting system. When it comes to how the camera performs in the field, the result is a bit of a curate's egg: good in parts. Exposures and colours are nicely rendered, but in action the camera can be painfully slow, and proved very hesitant in focusing terms too.

Image quality is not unpleasant (there was some highlight detail blown away in sunny situations) but it's nothing to write home about either, and bettered by many competitive models, some boasting less than 5MP resolution.

The lens is slow to zoom and pretty noisy to boot. In short this feels like a camera made to a price and a specification.

VERDICT

Another OK but not stunning camera from the people who coined the word 'invent' as their mission statement. More work needed on that front if the M417 is anything to go by. **WDC**

ACCESSORIES
hardware

PRICE £100

- **TYPE:** Portable image viewer
- **MEMORY:** 256 Mb
- **INTERFACE:** USB, Pictbridge, SD
- **LCD** 2.5inch
- **OTHER** Easy share Software, Printer dock connection
- **DIMENSIONS** 87 x 58 x 12 mm/68g

scores

PROS: Simple, good price, small

CONS: Limited capacity, smaller screen than some other viewers

features	17
ease of use	19
performance	18
design	19
value	18

91%

Kodak Easy Share Picture Viewer

Jamie Harrison tests a photo viewer from Kodak

We've seen various image viewers over the years and they keep offering bigger screens, more storage, and more functions. Kodak has taken a different tack. This is a small, slim, 256MB viewer for slipping in your pocket and showing your pictures to friends.

The white pearl finish is very iPod mini, with a nice beige leather case and the design concept was based around women's compacts. Any guesses for its main target audience then? The Picture Viewer is a substitute for prints, and showing images to groups of friends and family. The memory will hold several hundred 3MP images, and this can be expanded via SD. The SD card slot is also, of course, necessary for downloading images.

The whole operation is typical of Kodak's Easyshare system: insert a card and transfer the files. They can then be viewed, email addresses can be attached, and prints made, via USB to a compatible printer. Emailing requires attaching to a computer, where your address book can be imported. The Easyshare software installed on PC or Mac pretty much sorts everything out for you, including uploading to the web. I've long been a fan of this software for its sheer ease of use and simplicity. Images on the screen are clear and bright, though it's easiest to use indoors.

VERDICT

This isn't really an enthusiast's or pro's tool, it's a personal storage solution for the everyman (or woman). It's cool and easy to use and I'm sure it will be popular. Plus you really can't beat the price. WDC

ACCESSORIES
filters

PRICE From £66

- **TYPE:** White Balance Filter
- **SIZE:** 58mm, 62mm, 67mm, 72mm, 77mm, 82mm
- **CONTACT:** www.bobrigby.com

scores

PROS: Portable, easy to use and effective

CONS: Expensive if you have several lenses

features	15
ease of use	17
performance	19
design	18
value	17

86%

The ExpoDisc

Jamie Harrison gets his whites right

One of the biggest advantages of digital photography is the introduction of white balance, imported from video. Where once several films and filters would be needed to cope with changing light conditions, now the camera does it all for you.

However it's not always plain sailing, and DSLRs, though good, don't always get it right. Auto White Balance is great for the lazy photographer, but post-production time spent correcting the colour can be a chore.

The ExpoDisc promises to change all that. It is essentially a filter that attaches to the front of your lens, and turns your camera's meter into an incident light meter.

With the white balance in manual measurement mode and pointed at the light source, it allows you to accurately measure the colour temperature and set the white balance accordingly. In the studio, this only needs to be done once for your lighting set up. On location you will need to take several readings as the light changes, particularly in the morning or evening when the light changes more quickly.

It's easy to use, and the results are astonishing. I was quite happy with most of the results direct from the camera, but in comparison to those taken using the ExpoDisc, they seemed cold and flat. The results can be subtle, depending on the camera and the light; I found compared to using a daylight setting at noon in August, there was little difference, but earlier in the day, the results were marked, particularly on skin tones.

VERDICT

You can achieve similar results with grey cards, but the ExpoDisc is quicker and easier. It won't suit everyone, but if you're especially critical and want to save time later, the ExpoDisc is a must have. WDC

ACCESSORIES
hardware

PRICE £35

- **TYPE:** Photo Viewer
- **FILE SUPPORT:** Jpeg, Motion Jpeg, MPEG-1, MP3
- **MEMORY CARDS:** CompactFlash I and II, Secure Digital, Memory Stick, Memory Stick PRO, Smart Media, Xd, Xd Type M and MultiMedia Card
- **ACCESSORIES:** Photo album, remote control, USB cable, A/V cable, power pack, 2x AA batteries
- **OPERATING REQUIREMENTS:** Windows 98 SE, ME, 2000, XP, Mac OS 10.1.2+
- **CONTACT DETAILS:** SanDisk **www.sandisk.com**, sales_emea@sandisk.com

scores

PROS: Easy to operate, portable size

CONS: Limited features, delay activating commands

features	15
ease of use	18
performance	16
design	16
value	15

80%

SanDisk Photo Album

Hannah Bouckley tests a photo album – not as we know it

The Photo Album from SanDisk allows you to view photos on TV. Designed to sit atop your TV set, it is about the size of a remote control.

On the front are four slots enabling up to eight different memory cards to be used. An additional CompactFlash slot at the back can be used to store photos.

Operation is straightforward; use the supplied cables to plug the Photo Album into the mains and attach it to your TV. Unfortunately it uses the traditonal three-cable connection (Video in, Audio in R and Audio in L) so anyone with a scart connection will need to buy an adaptor. Once the device is installed and 'SanDisk' flashes up, insert a memory card to display the card contents. Then click 'OK' to view the contents of folders, where thumbnail images are displayed. Hit 'OK' on the remote control to view a photo at screen size; scroll by pressing 'Previous' and 'Next.' It can take a few seconds from pressing a button for the command to begin, though, and as you scroll from picture to picture it momentarily zooms in before displaying it full size.

You can rotate or zoom in on images, but unlike similar devices there is no option to crop, create captions or add frames. Images can be viewed as a slideshow, specifying the time and transition, but you can't choose the order or pick individual photos. It can play MP3 music files and video clips.

VERDICT

Pocketable, with easy 'Plug and Play' operation, but there are similar devices with more features. **WDC**

ACCESSORIES
software

PRICE £29.99

- **TYPE:** Slideshow creation software
- **PRICE:** £29.99
- **SYSTEM REQUIREMENTS:** Windows 98/98SE/ME/2000/XP
- **CONTACT:** **www.fasttrak.co.uk** 01923 495496

scores

PROS: Good value, easy to use

CONS: Very basic, interface can be cumbersome

features	16
ease of use	17
performance	16
design	17
value	17

83%

Magix Photos on CD & DVD DeLuxe 4

Need to back-up photos? **Hannah Bouckley** tests a solution

Magix Photos on CD & DVD 4 deLuxe enables you to create slideshows from your digital photos and burn them to CD.

The layout is straightforward; locate photographs (or music) using the Media Pool on the left and drag them to the bottom where they can be displayed as thumbnails in Storyboard Mode – probably the most straightforward option – or as a Timeline. The latter is particularly useful, enabling you to view transitions, music and photographs as separate tracks.

Adjust brightness, contrast, sharpness and saturation in the Story Maker, where you can apply fades, zoom in on a specific section or rotate images. When your slideshow is complete click the 'Make Disc' tab and choose a DVD layout before burning it onto CD.

Some additional programs are included alongside Photos on CD and DVD 4 deLuxe. Magix Music Manager is for organising music files into play lists, while Magix Foto Clinic 4.5 offers adequate – if slow image editing. Magix Media Manager is a useful photo management program that enables you to assign you photographs to specific categories, although it can't read EXIF data.

VERDICT

While not for advanced photographers, the wide range of programs included makes Photos on CD and DVD 4 deLuxe a worthwhile option for beginners on a tight budget who want to perform basic editing and back-up their photos. **WDC**

PRICE Subject to contract

- TYPE: Cameraphone
- RESOLUTION: 2MP
- MEDIA: MS Duo Pro
- OTHER: JPEG, Bluetooth, IR, Video recording
- DIMENSIONS: 100 x 46 x 20.5 mm
- CONTACT: www.sonyericsson.com

Sony Ericsson K750i

This 2MP camera phone has AF, finds **Jamie Harrison**

Camera phones have been making huge inroads in the past couple of years. For the most part, the camera side has been of poor quality, typically VGA, though some have broken the megapixel limit. The camera function has been fairly limited, with slow capture and no control over the image.

That's all changing though, and camera phones are starting to offer some of the features we'd expect to see on a fully fledged digital camera. One such phone is the the new K750i from Sony Ericsson.

Not only does it break the 2MP barrier, it does it with a certain amount of style. Instead of the usual fixed lens found on most phones, the K750i is autofocus. It also has a light for low light photography: not a flash, you understand, but a LED torch type illuminator. There's also the chance to refine the images, thanks to colour controls, with options for sepia and black & white, and white balance controls. There's also options to change the picture size, adjust the burst mode and shoot in panoramic format. Useful camera functions include macro and night shooting. In fact, the camera offers much the same functionality as most entry level compact cameras.

The front of the phone looks much like any other mobile, with a large colour screen, which is reasonably bright and detailed. The back of the phone, or front, if you're thinking in camera terms, actually looks a bit like a camera, with a metal sliding lens cover, and the LED light. The side of the phone, or camera top plate – because the camera encourages you to turn the phone and shoot in landscape mode, like a traditional camera – holds the shutter release button, and digital zoom control. Images can be saved to internal memory or MS Duo cards.

I won't talk too much about the other functions, which are typical of phones, ie messaging, calendars, web browsing, music playing and so on, but it's worth mentioning Bluetooth and infrared, for forwarding on your pictures or sending to compatible printers.

The camera itself is a little slow, with some shutter lag, and slightly fiddly menu access, but the images are pleasantly surprising. They are reasonably sharp, certainly better than other mobiles' pictures I have seen, though sharpness falls off at long distance. There's also signs of sharpening being added. Exposure and colour is also reasonably good. Noise shows in shadow areas, and night shots using the light are very noisy. A common problem with mobile phone cameras is highlight blooming, but the K750i controls this very well.

VERDICT

Although not up to a dedicated camera, as a phone, the K750i does a good job of taking pictures, and for snaps, visual note taking or moblogging, it's up to the job. I'm sure it will even be used creatively by the more experimental photo fraternity. WDC

scores

PROS: Good image quality and controls for a phone, highly portable, bags of features

CONS: Shutter lag, still not as good as a 'proper' camera

features	18
ease of use	16
image quality	15
design	16
value	17

82%

Metz
Perfect partners for any camera, any make
Compact, Digital or 35mm SLR
The comprehensive range of Metz compact electronic flashguns is renowned worldwide for powerful performance, reliability and robustness, and is unrivalled whether you use film or digital cameras.
The Metz 28, 36 and 44 series flashguns provide consistent colour temperature for superior colour rendition and an even beam pattern for outstanding coverage. Easy to operate, they are compatible with over 250 film and digital cameras. Ask for a Metz catalogue or visit www.metz.de/en
44 MZ-2
36 AF-3
28 CS-2
Hasselblad (UK) Limited
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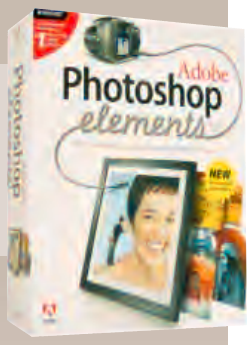
Email: metz@hasselblad.co.uk Website: www.hasselblad.co.uk

RAW Image Processing

Ian Burley investigates your options for producing great photos from increasingly popular camera RAW image files

PIXMANTEC RAW SHOOTER ESSENTIALS V1.1.3

ADOBE PHOTOSHOP ELEMENTS 3.0



BREEZE BROWSER PRO V.1.2.1

CAPTURE ONE PRO V.3.7.1

All digital SLRs and many premium compact digital cameras are capable of recording images in so-called RAW format, or camera RAW files. Often described as the equivalent of a film negative in digital terms, camera RAW files offer the maximum potential for exploiting the image quality of your camera. Here we examine four very different software packages for processing camera RAW files.

WHAT IS A RAW FILE?

When a camera records an image, the data is read off the sensor as a series of voltages, one value per lightsensitive photosite and then converted to a digital value. In most cameras, these values represent the intensity of the light seen through a regular mosaic pattern of red, green and blue (RGB) filters, a process called Bayer filtration. So each image pixel is a variation of just one colour; R, G or B. The result is, fundamentally, a camera RAW image. Usually, a camera processes the RAW image data in its buffer to produce a palatable image that should not require much additional processing. That RGB Bayer mosaic pattern needs to be interpolated to make all image pixels contain combined RGB data. Then the camera makes colour, contrast etc adjustments and saves the image as a JPEG.

The idea of camera RAW files is that you can take the unprocessed image data and process it yourself, without the kind of image degradation you'd face when applying the same changes to a camera JPEG image.

WORKFLOW

Software for RAW processing usually includes a panapoly of adjustment tools for moulding the image. The concept of optimised workflow is very important if you need to process many images and it's essential for cumulative adjustments to be applicable to a selection of images as a time-saving batch operation.

Making major adjustments to an image is best done at the RAW stage. A new trend is to provide advanced RAW processing tools with which you can manually correct lens distortion, chromatic aberration, sharpness and other common camera RAW image imperfections. The latest version of Adobe Photoshop is an example of this. Optics Pro, from DxO Labs, goes further and automatically makes such corrections by using profile data collected from selected camera and lens combinations. However, Optics Pro doesn't yet have a comprehensive database of camera and lens combination profiles.

COMPATIBILITY

The way different camera manufacturers package raw image data is different and some even encrypt key data in an attempt to lock you into their own software. Adobe has proposed a standardised RAW file format called Digital NeGative, or DNG, but others are trying to do the same thing differently.

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PIXMANTEC RAW SHOOTER ESSENTIALS V1.1.3

£FREE

WHAT DIGITAL CAMERA choice

Pixmantec is a new start-up in Denmark run by ex-PhaseOne staff. RawShooter Essentials is a free download that is remarkably elegant and powerful.

To download it you need to register with Pixmantec. Eventually, a 'full' commercial version of RawShooter will be released.

First you need to locate a folder containing supported RAW files. These are displayed as thumbnails and you can select one image for making adjustments. A selection of preset flat, indoor and outdoor adjustment profiles can be selected one after another to instantly find a match that is in the direction you want to take the image. Colour, contrast, brightness, white balance and sharpness controls are featured plus an enhanced 'detail extraction' sharpness tool. However, there is no curves tool - you'll have to wait for the commercial version. Neither are there more advanced correction tools for things like lens distortion.

Once you have built the adjustments, you can save them for use with other images. If your session is interrupted, all the variables are saved in the folder you are working on so when you run RawShooter again, you get the same view you left. You can export selected images in the file format and colour resolution of your choice in TIFF or in JPEG, but no other formats in this version. Camera ICC profiles are supported.

There is no conventional menu bar at the top of the RawShooter window, so finding things and getting used to some of the semi-automatic features of the user interface can be challenging, but worth the effort. Results are impressive and quickly achieved, though the sharpening tools must be used with care.

SPECIFICATIONS

PRODUCT: Pixmantec RawShooter Essentials v.1.1.3
COMPANY: Pixmantec
PRICE (DOWNLOAD): Free (PC only)
CONTACT: www.pixmantec.com

PROS: Elegant and smart user interface, powerful features, free
CONS: Advanced tools like tone curves missing

Features	17
Performance	18
Ease of use	16
Design	17
Value	20

TOTAL 88%

BREEZEBROWSER PRO V.1.2.1

£257 RRP

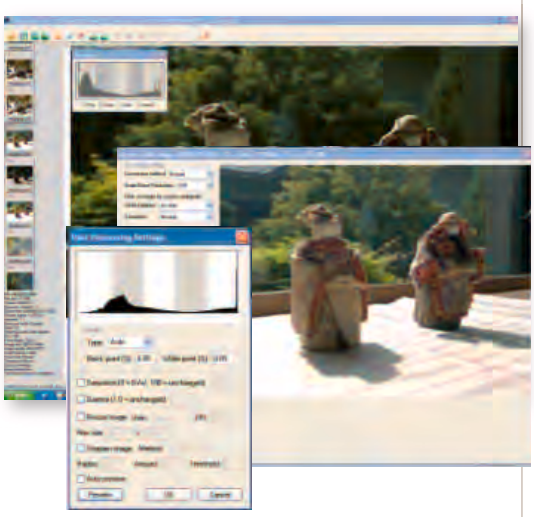
BreezeBrowser has long been associated with Canon DSLR cameras, but the software has evolved to support a wide variety of Nikon, Olympus, Konica Minolta and Pentax cameras as well. UK-based software author, Chris Breeze, is also renowned for the level of personal support provided for his packages.

One of the most obvious differences to the other packages reviewed is that BreezeBrowser can be used as an image management resource, featuring fast thumbnailing and previewing, not just of RAW files, but JPEGs and other relevant image file formats. BreezeBrowser is also available bundled with Downloader Pro, which lets you copy files from your camera using personalised naming and storage preferences.

There are still few general purpose image browsers that support RAW file formats. Microsoft has just introduced a Windows XP extension for browsing RAW images, but it only supports selected Canon and Nikon camera files at present. BreezeBrowser goes well beyond that and integrates a powerful RAW preview and conversion toolset. The latest version of BreezeBrowser has a high resolution four-on-the-screen image comparison mode, a film strip plus preview mode and faster previewing. BreezeBrowser can also help you build HTML web galleries without needing to do any programming, plus optional image watermarking and online ordering. It also has a slide show facility, batch renaming and date editing, among many other features.

The RAW conversion tools are not as elegantly implemented as some others, but it does the job and includes an enhanced noise suppression function, linear RAW extraction for improved retention of highlight detail, plus a special combination extraction setting for Canon cameras only. Batch processing is, of course supported.

Overall, BreezeBrowser is a bit of a Jack of all trades but not especially strong on the RAW conversion side. It is heartily recommended as a general browser and RAW conversion tool, but you might want to supplement it with a more powerful RAW processing solution for some jobs.



SPECIFICATIONS

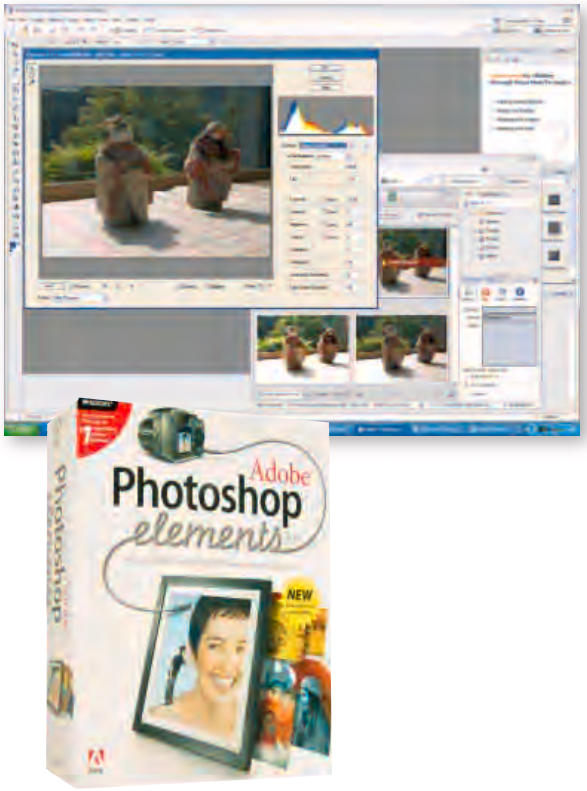
PRODUCT: BreezeBrowser Pro v.1.2.1
COMPANY: Breeze Systems
PRICE (DOWNLOAD): US$69.95 (PC only)
CONTACT: www.breezesys.com

PROS: Browsing and image file management, extended Canon-specific features
CONS: RAW conversion interface looks a little dated

Features	16
Performance	17
Ease of use	17
Design	17
Value	17

TOTAL 84%

£69.99 RRP ADOBE PHOTOSHOP ELEMENTS 3.0



Apart from the integration of Adobe Photo Album file management features, for the first time camera RAW support is in Elements 3.0 as standard.

All RAW processing is applied at the time of loading the image in a specialist RAW window. After completion, the image is loaded into Elements for editing. You get adjustments of colour temperature, tint, exposure, shadow levels, brightness, contrast, sharpness, luminance smoothing to suppress noise and colour noise suppression. There is also very comprehensive support for the different camera RAW formats.

You can also export and edit your processed RAW file in 16-bit colour resolution file. Settings from the previous conversion session can be applied to the current image and you can set your own default, though you can't save multiple custom settings. Lossless rotation of the raw image is possible too.

In fact, most of what Elements 3.0 RAW gives you is on the first tab of Photoshop CS2 RAW. However, CS2 has four additional tabs with advanced sharpening and noise reduction functions, lens distortion corrections, tone curve adjustment and camera profile adjustments. You can also save as many settings setups as you like and reload as you wish. And more things you get in CS2 RAW but not in Elements 3.0 RAW include cropping, user preference settings, image straightening and batch processing.

So Elements 3.0 is fine for the occasional RAW image and it's a big step on from previous versions, but has limits. Luckily, Adobe's high quality algorithms support the raison d'être of RAW processing; to deliver extra high-quality images. The relatively modest rating given here reflects the limited RAW features in Elements 3.0, though the package as a whole rates 90% plus.

PROS: Superb general purpose consumer image editing & file management
CONS: RAW processing features fairly basic

Features	14
Performance	17
Ease of use	18
Design	17
Value	17

TOTAL 83%

SPECIFICATIONS

PRODUCT: Adobe Photoshop Elements 3.0
COMPANY: Adobe Systems
PRICE: £69.99 (PC/Mac)
CONTACT: www.adobe.co.uk

$499 RRP CAPTURE ONE PRO V.3.7.1

Phase One, of Denmark, has an illustrious digital imaging heritage. The company started out in the high quality film scanning business and has developed an impressive portfolio of professional-level hardware and software products, including medium format digital backs and, of course, Capture One Pro, arguably the most powerful RAW processing tool you can buy.

A lighter version aimed at amateurs and semi-professionals is available for the more digestible $99. The primary difference is that the LE version doesn't have specialist tethered capture features for selected Canon cameras.

Capture One presents a sensible default layout, with an image file thumbnail browser to the left, an image preview pane in the centre and an adjustments settings and status panel to the right.

The panel is divided into five tabs; Capture, White Balance, Exposure, Focus and Process. The Capture tab displays a histogram and information about your computer's storage resources. It's used to control image capture when tethered to a supported camera. The White Balance tab contains two magnified preview panes displaying the area around your mouse pointer when it tracks over the preview pane and shows before and after white balance effects.

Extensive adjustment controls include temperature and tint sliders and a colour balance wheel, plus hue and saturation controls. In the Exposure tab you can again compare a magnified area before and after adjustment for exposure bias, contrast, colour saturation and tone curve and levels adjustments.

Sharpness and noise control are handled in the Focus tab, with a single larger magnified preview with adjustable zoom setting. Banding suppression is also featured. The Process tab contains options for image export, including file format, resolution, colour bit depth, etc. Up to three versions of the source file can be processed and exported, maybe for a web-ready low resolution version, a medium resolution proof for the customer and a high resolution master for final production. Batch processing is also controlled from here.

Capture One is very inspiring to use and I found that with some work, colour fidelity was particularly pleasing with the results. It's not quite as slick to use as its distant relative, RawShooter Essentials, but in many ways it's easier to use out of the box and, currently, a lot more powerful.

PROS: Features galore, great results
CONS: Expensive

Features	19
Performance	19
Ease of use	18
Design	17
Value	16

TOTAL 89%

SPECIFICATIONS

PRODUCT: Capture One Pro v.3.7.1
COMPANY: Phase One
PRICE: $499 (PC/Mac)
CONTACT: www.phaseone.com

Mega Prints

For quality prints to hang on your wall, you need an A3 printer, and they're more affordable than ever. **Jamie Harrison** tests four models

WHY YOU NEED ONE

Whether you shoot colour or black & white, at some point you may find that some images just need to be printed bigger than A4. It could be for a portfolio or to frame images for your living room, or even to exhibit and sell; but whatever the reason, you need big prints. Plus you want some control over the results, rather than trusting a high-volume lab to make the prints for you. In addition, recent developments in ink and papers means inkjet prints often offer better archival qualities than traditional colour silver halide prints.

BUYING ADVICE

In the not-too-distant past, A3 printers were strictly in the realm of the professional or very serious amateur, and often needed dedicated profiles of the printer, inks and papers to get the very best from them. Improvements in the ink and print stability, as well as the printers' own profiles means this is often less critical, though for really top notch results, profiling is still desirable, and can reduce ink costs. However, even the cost of professional profiling has come down and dedicated profiling equipment from companies such as ColourConfidence is cheaper and easier to use.

I would be very happy with any of these printers sitting on my desk, as they all produce excellent results. What is interesting is that problems that used to arise a year or two ago have been eradicated. Things such as banding, dot visibility and certainly longevity have all been addressed, making inkjets every bit as good as a traditional print, if not better (platinum prints aside!).

EPSON STYLUS PHOTO R2400

£500 RRP

SPECIFICATIONS

Price: £500
Resolution: Up to 5760 x 1440 optimised dpi/3pl dropsize
Inks: Pigment Ultra Chrome K3 inks/ Light Light Black, Light Cyan, Light Magenta, Light Black, Cyan, Magenta, Yellow, Photo Black or Matte Black
Longevity: 70 years (colour) and over 100 years (B&W)
Interface: USB 2.0 Hi-speed, Firewire, PictBridge
Dimensions: 457 x 615 x 737mm
Weight: 11.7kg

Epson's newest printer is really aimed at the professional wishing to make fine art prints, hence the high price.

Unlike its predecessor, the 2100, there is no grey balancing software to contend with and the new K3 inks 'dry down' much faster, producing the final look of the print after about an hour.

The addition of the new K3 inks with more grey tones also makes the printer better for black and white prints and the effect of bronzing, much criticised on the 2100, has been eradicated. And the printer is much faster, taking about 5-10 mins to produce a good A3.

On the test prints the R2400 prints very slightly dark, but produces neutral colour on gloss paper. Skin tones and greys are very good, but shadows can block up very slightly. Matt papers produce a little warmer print, but not overly so. A good performance and, unsurprisingly given the cost, the best of the bunch.

scores

PROS: Excellent print quality, ease of use, good looks

CONS: Slightly warm matt prints, a little dark, fiddly, poor LCD illumination in bright light

SCORES	
Print Quality	19
Ease of Use	18
Speed	17
Design	18
Value	18

TOTAL 90%

EPSON STYLUS PHOTO R1800

£400 RRP

SPECIFICATIONS

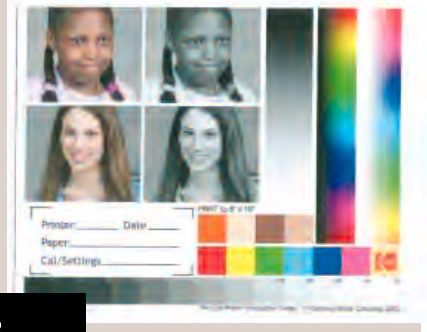
Price: £400
Resolution: Up to 5760 x 1440 optimised dpi/ 1.5pl dropsize
Inks: Pigment Ultra Chrome Hi-Gloss Cyan, Magenta, Yellow, Red, Blue, Photo Black, Matte Black, Gloss Optimizer
Longevity: 80years+
Interface: USB 2.0 Hi-speed, Firewire, PictBridge
Dimensions: 453 x 615 x 737mm
Weight: 11.7kg

The R1800 is essentially a stretched R800 and uses the same Ultra Chrome Inks.

The addition of a gloss optimiser covers the pigment inks to produce a superior gloss finish with no bronzing. On matt paper the optimiser is turned off. Epson has aimed this at a more enthusiast market than the R2400, and it is cheaper to buy and to run.

The images produced by the printer are very satisfying, with bang-on neutral gloss prints at the right density. Skin tones are pleasant and greys very good. On black and white prints though, the mid greys are a tad cold, with a hint of blue just showing through. This is worse on matt prints, with a magenta cast also creeping into both greys and skin tones. Prints are also a smidgeon dark, with some loss of separation in deep shadow areas.

Nonetheless, a very good performance at a reasonable price.



scores

PROS: Cost, neutral gloss prints

CONS: Magenta matt prints, slightly dark matt prints

SCORES	
Print Quality	17
Ease of Use	18
Speed	18
Design	18
Value	18

TOTAL 89%

HP PHOTOSMART 8750

£330 RRP

SPECIFICATIONS

Price: £330
Resolution: up to 4800 x 1200-optimised dpi
Inks: 9 HP Vivera inks, including HP 344 Tri-colour, 101 Blue Photo, HP 102 Grey Photo/ Dye based
Longevity: 100 years+
Interface: USB 2.0 specifications, 1 Ethernet, 1 PictBridge, 4 memory card slots
Dimensions: 643 x 399 x 204 mm
Weight: 11.8kg

HP has the cheapest printer in the group, but it also has extra features such as memory card slots and Ethernet connection. The HP also seems the quietest of the bunch.

The dye inks used are within a set of three cartridges, including the No 102 grey photo cartridge, allowing, says HP, neutral black and white printing.

And they're not wrong: the greys in both black & white and colour images are very neutral, bang on in fact. Other colours on gloss paper are very slightly cold, with a hint of cyan in skin tones and off whites.

Some colours such as red and yellow are just a little bit too saturated in comparison with the other printers on test, but that may appeal to some users. Matt prints are too light, by about 1/2 stop (in photographic terms) and need adjustment to get the best out of them.

scores

PROS: Good neutrals, quiet, good price

CONS: Light matt prints, slightly cold prints

SCORES		
Print Quality	17	TOTAL 88%
Ease of Use	19	
Speed	17	
Design	17	
Value	18	

CANON i9950

£550 RRP

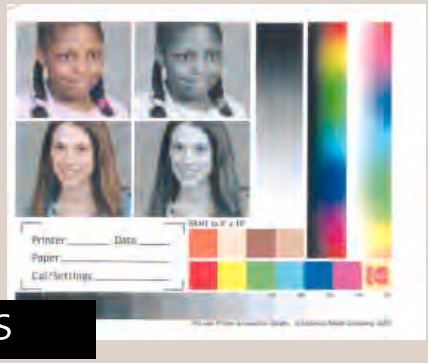
SPECIFICATIONS

Price: £550
Resolution: Up to 4800 x 2400 dpi
Inks: 8 Chroma Plus inksSingle Ink technology - eight separate ink tanks (Photo magenta, Red, Black, Photo Cyan, Cyan, Magenta, Black, Green)/ Dye based
Longevity: Not available
Interface: USB 2.0 Hi-Speed, FireWire (Mac only), PictBridge/ Canon Direct Print
Dimensions: 577 x 334 x 182 mm
Weight: 9.5 kg

Canon's i9950 has been around for a while but still seems to be able to produce the goods. The design is Bubble Jet, rather than the more trendy Pixma printers we've seen of late.

Gloss prints are darker than the other printers' results, but a slight tweak in the driver soon solved that. This also leads to some over saturation, and orangey skin tones. This added warmth of yellow and red is also be seen in bold colours and mid grey areas.

On matt paper, the printer takes things in a different direction with a very small tinge of green in the skin tones, which makes the subject look ever so slightly seasick. Again this can be corrected to some degree in the driver. Not a horrendous printer by any means, but suffers compared to the newer models from Epson. But this is Canon's older technology and it stands its ground well. I can't wait to see the next generation.



scores

PROS: Very fast, good detail

CONS: Colour balance and density slightly off

SCORES		
Print Quality	16	TOTAL 87%
Ease of Use	18	
Speed	20	
Design	17	
Value	16	

'Black & white is the simplest way of getting to the heart of an issue... of sharing what you're experiencing'

Alex Majoli

Gavin Stoker finds out from award-winning Magnum photographer Alex Majoli why black and white's ideal for creating impact

In stark contrast to the glamour-fuelled world of certain leading photographers, Italian-born Alex Majoli's black and white imagery explores the grim underbelly of human existence in unflattering detail; from death in the war zones of Afghanistan, Kosovo and Iraq, to murder on the streets of Brazil.

Like most professionals he began taking photos as a boy, before turning pro in 1990 when he began shooting for the Grazia Neri agency. The now 34-year-old joined the renowned photo agency Magnum Photos in 1996 and currently leads an international life, living between New York and Milan, collecting awards as he goes – including most recently that of 'Magazine Photographer of the Year' from the US National Press Photographers' Association for images taken of the war in Iraq and the quieter routine of daily life in China. Other acclaimed projects have included a 24-hour shoot for the 2002 book 'A Day in the Life of Africa'.

What's perhaps less associated with a high-ranking photographer, however, whose pictures are published in the likes of National Geographic, Newsweek, the New York Times and Vanity Fair, is his choice of kit. Alex has eschewed the very latest high-end DSLRs, preferring instead less intrusive and portable consumer-level compacts such as the Olympus C-5060, C-7070 and C-8080: five megapixel, seven megapixel and eight megapixel apiece. Although capable cameras, their un-flashy performance wouldn't normally put them on a par with the likes of the Canon EOS-1Ds or 1Ds Mark II, traditionally favoured by photojournalists and those working in reportage. Plus there's the fact that you have a fixed lens (27-110mm, or 28-140mm for the C-8080) and built-in flash to contend with, not to mention a maximum ISO of 400. Nevertheless Alex has been inspired by such limitations; indeed the award-winning Iraq and China portfolios – published in Newsweek – were taken on the earlier C-5050. Digital images are captured in colour and then converted to black and white at the editing stage for added impact.

As a photojournalist and storyteller, whichever format Alex's images end up in depends on his individual interpretation of each

Above: A Northern Alliance soldier guarding Pakistan and Taliban prisoners. Kabul, Afghanistan, 2001
Left: Refugees in Goma, Democratic Republic of Congo, 2003

lightbox

project. For example: 'I originally envisaged shooting a recent story in the Congo in colour. But when I got there black and white seemed to be the more natural choice – not just for aesthetic reasons – it was more a reflection of my state of mind. Colour is obviously more associated with reality, but black and white enables you to cut straight to the point.'

It proved to be the right decision, as Alex's digital images from the Congo have gone on to net him the Overseas Press Club's Feature Photography Award.

> 'SLR cameras are too aggressive. I wanted something light so I could shoot more freely'

However Alex's desire to shoot black and white was originally born out of more prosaic concerns. 'I started using black and white for practical reasons, because it would enable me to develop the images myself,' the heavily-accented photographer admits. 'And then, once I'd learnt more about photography, I realised that black and white is the simplest method of getting to the heart of an issue. It's a more direct way of sharing whatever you're experiencing.'

WHERE THE ACTION IS

Defending his choice of Olympus point-and-shoot cameras – which he freely admits are ridiculed at times by his peers – the Italian maverick has this to say: 'SLR cameras are too aggressive. I wanted something light that would enable me to shoot more freely. I like the way the screen can be detached from the camera and used as a viewfinder (the tilt and swivel LCD feature of the Olympus compacts); I shoot that way a lot when I'm taking pictures.' It's inspired Alex to alter and evolve his shooting techniques – no longer having to hold the camera up to his eye – as well as providing a new approach to his subject matter, who, by him shooting this way, often don't realise he is taking their picture. Additionally, it's prompted some of his contemporaries to try out the cameras for themselves.

Though the majority of digital compacts offer the ability to capture black and white in-camera, Alex's JPEG files start off in colour because, he says: 'that way you get more information and the files are bigger.' File size is of course a crucial concern when your images are being distributed to a variety of media by a world-renowned photo agency like Magnum Photos. And how much time is actually spent post processing an image again depends on the story.

'For a news story, or for a magazine, I'll open a picture in iView, perform a quick edit and caption it – then open Photoshop and do a little colour balance and contrast adjustment,' Alex reveals. 'If I'm doing a book or exhibiting I'll spend a lot more time – maybe three or four hours on one picture, removing anything extraneous

gearbox

Alex prefers point-and-shoot compacts the **Olympus C-5060, C-7070** and **C-8080** to any digital SLR, carrying several with him at one time set up the same way so he can switch between them when necessary and achieve identical results. Images are written to flash cards 'no more than 1GB and no less than 512MB, and I really suggest everybody to do the same.' Images are then transferred to a Lacie portable hard drive and later downloaded to a laptop.

lightbox

Right: On the road to Tora Bora, Southeast Afghanistan 2001. Refugees escaping from the conflict areas.

Opposite Page: Nestled in the blue Aegean Sea, the idyllic Greek island of Leros was for over 20 years the site of the world's most notorious insane asylum, housed in a former prison. In his acclaimed book, Leros, Majoli chronicled its brutalised inmates and their eventual reintegration into island society.
Top: Funeral. When a patient died, another corpse will have been waiting a week for burial. One corpse was deemed insufficient for a burial; a minimum of three was required.
Bottom: A patient and a care worker lie in the sun on Leros beach.

from the edges of the shot and cleaning it up, aping the process in the darkroom.'

At the time of speaking Alex had just returned from a project in Latvia where he'd shot a lot of snow-filled black and white scenes. 'So the pictures are really white, not much contrast and it's very difficult to find detail in the snow – especially during the sunset,' he explains. 'So I've been carrying out a bit of dodging on those and pulling up some of the detail so as not to lose it.'

But why choose the digital route for the project – why not just go out and buy a roll of black and white film for the Leicas he used and trusted in the past? 'The advantages of shooting digitally are that I don't have to shoot film any more,' Alex laughs. 'You can see your picture quicker, so it's faster – you can see where you are and whether you have what you need during your assignment.' And, aside from rapid turnaround of images, his films aren't confiscated by zealous officials any more. 'As for disadvantages… er, I can't think of any actually,' he adds, laughing again before continuing: 'I suppose I could ask for my cameras to be a bit faster; a bit more like a Leica. I have no problem with the files and the image quality, but I miss the feel of a real camera in the hand, let's say, and the Leica shutter sound.'

Alex circumvents any technical limitations of his Olympus digital compacts by carrying several with him at any one time. This allows him, for example, to shoot three high-resolution JPEGs in quick succession on one, and then grab another to shoot three more without missing any of the action while the first is writing to card. This inspiringly low-tech and unique method comes in particularly handy when photographing a conflict in progress, such as the two months spent covering the recent Iraq war, when history is unfolding in front of the lens. 'I have two cameras round my neck at the same time,' he confirms. 'Both manually set up the same way to avoid any disparity between the images.'

> 'When shooting a conflict, such as the two months spent covering the Iraq war, "I have two cameras round my neck at the same time"

Like many pros, Alex won't use a memory card with a capacity higher than 1GB, avoiding the nightmare scenario of losing hundreds of files in one go if the card corrupts, and conversely won't shoot to a card with a capacity less than 512MB, lest he miss any action reloading fresh memory. When he gets an opportune moment, images are downloaded to a portable hard drive in the field, and later, back at base, transferred to a laptop computer.

Our conversation moves on to the importance of lighting when shooting black and white images – particularly portraiture – and Alex becomes more animated. 'The last project that I did, I used flash because I wanted to separate people's faces from the reality of the background. The advantage of these small cameras is you can shoot at 1/4000th/sec, so everything else becomes black, even in daylight. The fastest speed you can use with a small film camera, even something like a Leica, is 1/125th sec. I used a very powerful flash close to the head of these people to get the effect I wanted, but generally I'm using natural lighting.'

Refreshingly, despite his rather philosophical take on his art, Alex has no pretension to actually being labelled as an artist of any sort. 'I'm using a camera to make a living and maybe to say something, to myself more than anyone else,' he says. 'Digital has made me feel free to do whatever I want and enjoy doing it. There are no limitations to photography any more.'

■ *To view more of Alex's award-winning projects and portfolios, direct your browser to* ***www.magnumphotos.com*** *or visit* ***www.cestino.it/leros/*** *which features his acclaimed images from the Leros insane asylum in Greece.* **WDC**

Alex Majoli's tips for images with impact:

1 You don't need an SLR to take great pictures – absolutely not – people should use what they feel most comfortable with. Sometimes people think I'm crazy because I use a point-and-shoot camera but I'm not comfortable with an SLR. I can't pick it up. It's like if I use sandals I cannot walk – you have to feel OK – I'm wearing my Pimona shoes and have my small cameras. It's an attitude.

2 Black and white is more direct than colour, allowing you to concentrate on the heart of what you're trying to convey, without any distraction.

3 Natural lighting is best, unless you're going for a particularly stylised effect.

4 When shooting reportage, an SLR can be intimidating to the people you're photographing, 'yet at the same time I understand that each photographer has his own attitude and his own thing,' Alex says.

'Digital photography has changed the way I view an image as it's so easy to shoot from the hip now'

Nick Scott

Gavin Stoker braves the hectic world of the catwalk to meet fashion, advertising and portrait photographer Nick Scott

'Your communication skills are as important as your photographic technique when it comes to fashion – otherwise you end up shooting a still life,' advises Nick Scott, regular lensman at the heady swirl of hemlines and hosiery that makes up London Fashion Week, and who has himself fashioned creative relationships with designers Philip Treacy, Julien McDonald and Alexander McQueen. 'You see that a lot when still-life photographers shoot fashion; there's no rapport with the model. I like people to look alive, even when they're static.'

Although now firmly ensconced in west London, from the 1980s through to 90s the photographer and documentary maker was based in the Italian fashion capital of Milan, after pictures taken for a production of the Rocky Horror Show and some shots of hats by designer Stephen Jones ('still life with mannequins') won him the attention of the art director for Italian Vogue.

'The pictures had a grotesque element which appealed to him,' Scott recalls. 'So he commissioned me to shoot Italian fashion on British pop personalities. I got together with Frankie Goes to Hollywood along with Kate Garner from Hayze Fantazee, now a photographer herself, comic Tracey Ullman, Mike Monroe – the glam lead singer of Hanoi Rocks – and Bill Wyman. My plan was always to say 'yes' to any job and work out how I was going to do it afterwards.'

That policy seemed to pay off, as one shoot led to another and Scott's career flourished overseas. 'Everything seemed very "buzzy" out in Milan and very dull here in London, so one day I said to my wife: "Let's go out to Milan and give it a go"; we packed the car, rented out our house in Finchley and drove off. And it worked out.'

Unfortunately he has only a smattering of work left from that pre-digital period. 'I was very lax about getting my originals back from magazines so all I've got left are the printed pages rather than transparencies,' the photographer sighs, recalling the bygone era. 'I've had to scan in the pages which means that they cannot be reproduced very large, though I am planning to do one of them very, very large just to emphasise the fact that this is magazine work. That's where this photography really lives and should live.'

POINT AND SHOOT

Although Scott has worked with everything from 35mm to 5x4 to 10x8 Polaroid, he admits very little among his collection of photographs is purely digital. He prefers working with a hand-held point and shoot

lightbox

Above: Dragana: Personal work, taken during an editorial shoot for Joyce Spain. Nick prints onto a Epson 2100 A3 printer

Above: Legs: Shot on a Mamiya RB67 for Donna Magazine
Right: Karin: For Moda Magazine

than the latest D-SLR. 'I've got a Canon Digital IXUS 400, which is not only beautiful, it also has great image quality,' he enthuses. 'But the real benefit is its slow sync flash setting. I find four megapixels is enough, and all my prints are output on the Epson 2100 printer, which gives the images a fabulous painterly quality.'

The Epson 2100 appealed because of its use of pigment inks. 'There's a nagging doubt that a dye-based image is not going to last and a pigment image is,' he explains. 'I've been through a range of Epson printers, from the 600 through to the 1270 because I wanted a wider carriage. If the prints end up going somewhere else, or you sell prints, then you want to know that they're going to last.'

Using the Canon IXUS has also changed his view of shooting stills. 'I see it as a serious camera, I carry it around with me and use it backstage which tends to be a low-light environment, so I like the IXUS' flash and long exposure. You get these double images with lots of movement and a bit of blur, but a core sharp image which you've pulled out using the flash. It's changed the way I view an image as it's so easy to shoot from the hip now. I shoot mostly black and white with the IXUS. I'm not using digital in larger formats at the moment, but am thinking of moving to a digital SLR.'

RETOUCHING

Do you digitally retouch your images at all

'Yes, digital is a total part of my world from the moment the image is shot. I supply everything on disk or upload to a site. With digital you know you've got it the way you want it. How long I spend in post production depends on what's going on; I'll take out blemishes, tweak the colour and contrast, plus often de-saturate the image a little bit. I'll use Curves in Photoshop.'

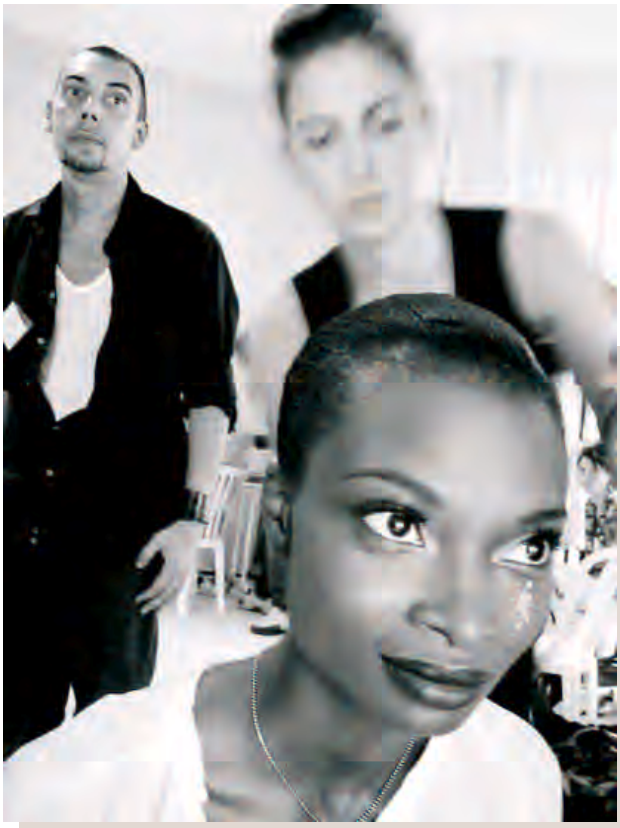
Nick's images have a lovely nostalgic feel, as if they belong to a more distant, kinder era. 'I just like the look,' he reasons. 'I don't always do it – in the late 80s I was doing a lot of cross processing – very vibrant, strong colours. So maybe it's a reaction against that.'

'I do use a lot of funny techniques,' he continues, with a grin. 'I'll take black and white pictures, photocopy them on colour photocopiers and then scan the result. I suppose you could get a similar effect in Photoshop but I'm choosing to do it manually because I know it's going to work.'

As for future projects, when we spoke, Nick was trying to put together an exhibition. 'I've got Adobe behind me with that – they're very keen to make it a combined video and stills show – because, like them, I've got both mediums covered. And 2005 would be a nice time to have one, because it's getting on for 25 years since I was making the solid switch to professional photography.'

See more of Nick's work at http://www.fashionflix.net **WDC**

lightbox



Opposite Page: Shot for Lemon Jeans advertising campaign - Italy

Left: Shot on a 4MP Canon Ixus 400, backstage at the Carlos Miele London show. Nick likes to use the Ixus with slow-sync flash

Below: Also taken on the Ixus 400, at the Carlos Miele London show. (Personal work)

gearbox

Nick shoots most of his fashion work on film, but also uses a 4MP Canon Digital IXUS 400, writing images to a couple of 256MB and 128MB CompactFlash cards. 'I quite like having a few cards rather than one big one – if something goes wrong or you lose the camera then you haven't lost everything,' he reasons. The resultant images are output via an Epson 2100 inkjet, which Nick favours for the apparent longevity of its pigment inks, utilising Permajet Museum Classic paper.

Nick Scott's tips for images with impact:

1. Composition is incredibly important to make something visually arresting. I like shooting from low angles and a lot of wide angles too. Often I'll use as wide as 24mm.
2. A good rapport with your model is by far the most important thing. When a good relationship is built up, you can communicate with just a glance.
3. When it comes to lighting I go through phases: there's been times I've done very heavily lit work, and others where I've used lights each with a different coloured gel, so that when they cross the shadows have multiple colours in them. I'd put together the green, red and yellow so that the person that's lit is fairly neutral but the shadows take on the dappled colours of the gels.
4. I find myself always coming back to pure daylight. I do like it best of all.
5. Don't rely on Photoshop to 'sort it out'. That's a terrible mistake. Try to get it as correct as possible. That said, I've stopped doing effects in camera any more because you may as well composite in Photoshop.

'In general, the sheer beauty or unusual character of a subject reels me in'

Rod Stewart

B&W photography doesn't have to be all windswept landscapes or gritty images of war, as enthusiast Rod Stewart tells **Gavin Stoker**

Perhaps it's because photography enthusiast Rod Stewart hails from the wilds of Nova Scotia – and no, he didn't have a hit with 'Sailing' – that his most effective digital black and whites focus on small details; texture, tone, the minutiae of life. Indeed, some of his very first pictorial images, as an 11-year-old, were of Lilliputian folk that formed part of a model train set assembled by his grandfather.

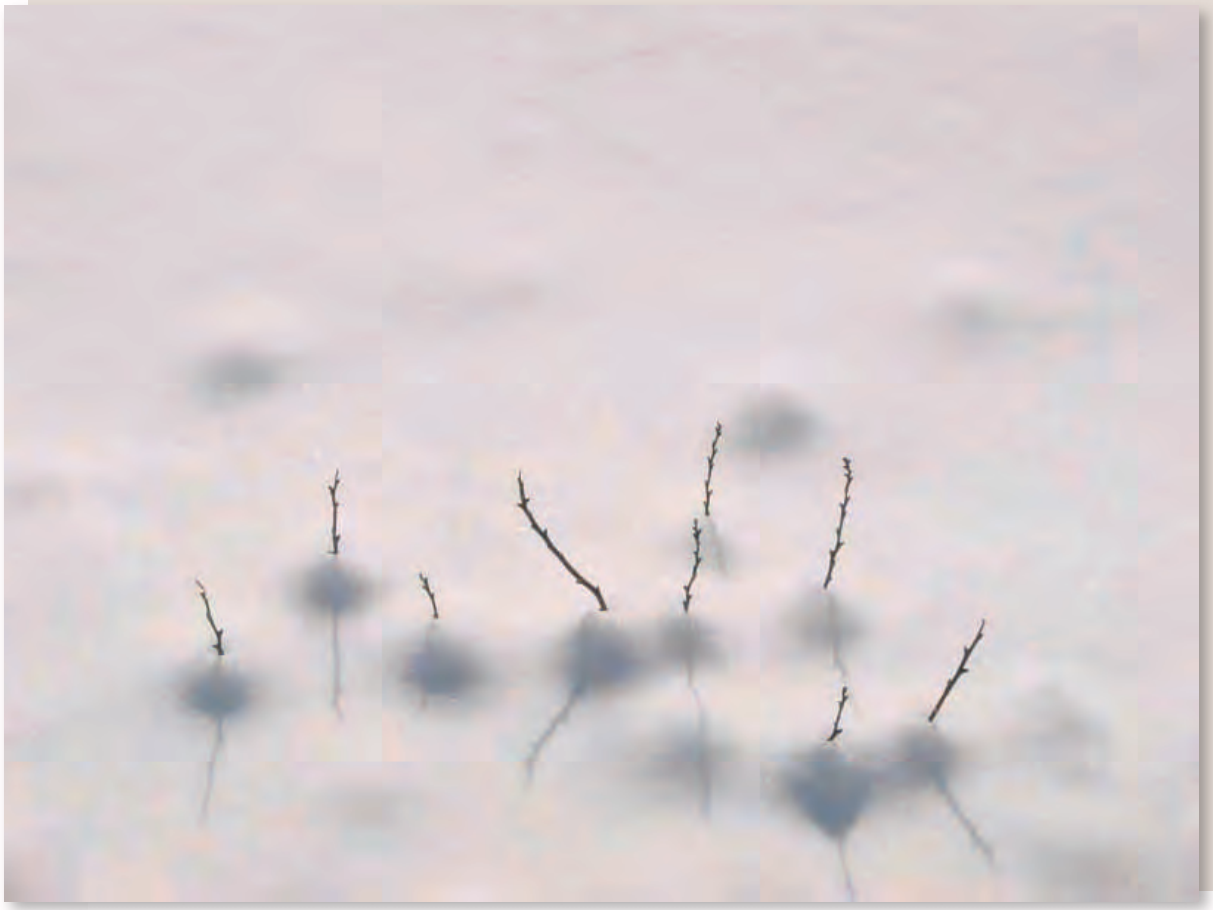
It wasn't until college days studying marine biology, however, that Stewart became serious about his photography, splashing out on a second-hand Nikonos underwater camera. Naturally it came equipped with close up attachments.

'We don't have gorgeous tropical reefs off Nova Scotia,' he laughs, 'but there are quite lovely fire orange anemones and other curious creatures. Being an avid outdoor person, the Nikonos followed me everywhere, on land as well, in all conditions. Eventually I moved on to a SLR with a few lenses in the early 1980s. Film was cheap then, so in no time the drawers became filled with transparencies.'

Not being a jobbing professional with deadlines to meet and clients to satisfy, shop clerk Stewart has the luxury of being able to photograph whatever attracts his eye. Sometimes it can be the riot of colour, a simple composition of a few key lines, or an examination of textures or tones. Perhaps that's why his shots are imbued with an artistic freshness. 'Once in a while a subject strikes a chord inside you and schemes start to roll through your mind,' he marvels. 'Often it's the overall ambience or mood of a location that stirs the visual creative juices. For example: fog, bright sunshine and twilight all have a different emotional quality. In general, the sheer beauty or unusual character of the subject reels me in.'

In this freewheeling way Stewart makes a point of avoiding having any preconceived idea of what he might or should be shooting at any given time. Of course, it also helps to have the wonders of nature on your doorstep. 'On overcast days of course my inclination is to take advantage of macro nature subjects,' he readily admits. 'While in bright sunshine my antennae are receptive to folly among shadows.'

lightbox

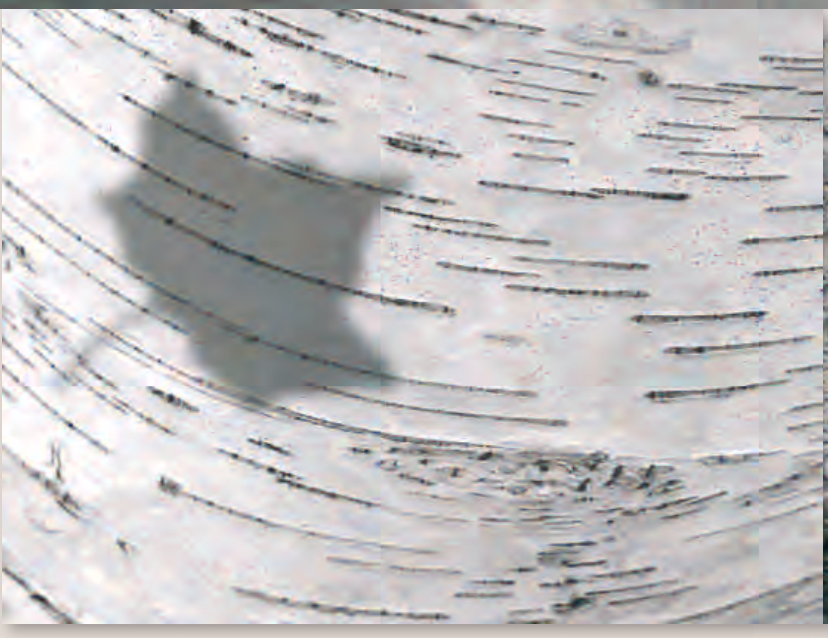


Left:
DEEP WINTER
Sony Cybershot DSC85
13.9mm
1/1000 sec, f8
ISO 100
Manual Mode

A bone chilling foray in dead winter just because of the stark white wonder. A delicate composition.

Opposite Top:
FENCED IN
Sony Cybershot DSC85
10.6mm
1/160 sec, f8
ISO 100
Manual Mode

Made during the dog days of summer. Even the farm animals huddled wherever shade was available.



Above: FALLING SHADOW
Sony Cybershot DSC85
18.2mm
1/50 sec, f6.3
ISO 100
Manual Mode

A photo composite of two images. One of a blurred leaf upon an interesting streak pattern of bark.

Above: TIN DROPS
Sony Cybershot DSC85
21mm
1/320sec, f4.5
ISO 100
Manual Mode

Pausing for a moment while on my lunch stroll to capture metallic glistening. Water is a seductive subject on all accounts.

lightbox

Above: SPOKEN
Sony Cybershot DSC85
15.8mm
1/160 sec, f6.3
ISO 100
Manual Mode

An abandoned bicycle on the university grounds after a fresh snowfall. Winter season is a six-month inspirational moment for minimalist agenda.

Above: SPRING THAW
Sony Cybershot DSC85
8.1mm
1/10 sec, f7.1
ISO 100
Manual Mode

A classic scene that is globally obsessive to most photographers where available. The texture of moving water and the last vestiges of Winter passing into Spring causes most of us to skip a heartbeat of joy.

gearbox

Rod describes his current choice of the 7MP **Sony DSC-V3** which replaced the **Cyvbershot DSC-85** on which a lot of these images were taken, as 'a basic point and shoot camera, nothing too fancy.' The reason for his decision, he says, is that he needs a camera that offers versatility and lightness, but is also conveniently unobtrusive, so he can shoot in snatched moments daily.

UNOBTRUSIVE GEAR

Stewart, who works in the biology department at Dalhousie University, Nova Scotia, says 'For the past 20 years I've been actively involved with photography as a hobby and expressive outlet for my love of the natural world. My career has been largely orientated around the aquatic environment, including various research involving marine fauna and flora'. He explains he searches out photographic subjects in spare moments snatched from every day, so uses the Sony V3, which he finds is conveniently unobtrusive, yet also versatile.

'And not too heavy,' he adds, 'without a pile of lenses to fumble about with. Compared to the cost of shooting film, digital imagery is much more economical in my situation.' As an amateur, that 'situation' means that the audience for most of Stewart's images to date has been family, friends or fellow photo enthusiasts on the internet. Until WDC that is.

'The greyscale has a reserved mellow attitude that allows one's thoughts to simmer'

Like many others, and with encouragement from fellow snappers, Stewart finds digital technology allows him to experiment more and, as he states himself, 'go beyond what was initially recorded through the lens.'

He admits that most of his images contain minor alterations of the original scene, though he doesn't use software – Photoshop Elements – to change what the lens recorded but rather 'emphasise certain aspects to add impact to the visuals.'

His conversion of the original colour files to black and white at the image editing stage is a natural extension of this desire. 'Frequently the scene or subject has high contrast to begin with,' he explains. 'I accentuate the extremities of tone by controlling brightness and contrast in the software. Pretty straightforward stuff; often it's a swirl, a line or interesting shape that first catches my attention.'

'For me, black and white tends to work better for a graphic message as opposed to imparting a mood. Although I do enjoy colour, it can be a mischievous seductress,' he shivers. 'The greyscale has a reserved, mellow attitude that allows one's thoughts to simmer.''

Stewart concludes, not unreasonably: 'Photography is a pleasurable way to share the joys of daily life.'

To view more of Rod Stewart's B&W photography skills, visit the 'I Got Mono' section of his portfolio at www.pbase.com/east_star **WDC**

Rod Stewart's tips for images *Black & White*

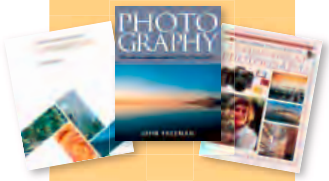
1. I find if you squint your eyes quickly before you take a shot, you get a good idea of what the camera lens would record and what the tones might be. You can achieve a better tonal contrast this way.
2. Be open to what the subject has to offer.
3. Don't get bogged down by your equipment. Be familiar with it and at ease.
4. The magic hours for outdoor photography are sunrise and sunset, but I also like shooting at noon as well because the lighting's quite harsh and you get good extremes between the shadows and the highlights, which makes for a particularly effective B&W.
5. By doing a little basic image editing in Photoshop – tweaking brightness and contrast – you can accentuate what you've already captured and add impact.

john freeman

John Freeman is one of the UK's top pro photographers

His clients include some of the country's biggest companies. He has illustrated well over 100 books, covering subjects as diverse as cookery, health, travel and home interiors. He has also sold over a milion copies of his glossy photography manuals, of which he has written more than a dozen.

John also sells fine art photography from his own gallery in London's prestigious Oxo Tower. He is fully digital, and mainly uses a Canon EOS 1DS SLR with a variety of lenses.



www.johnfreeman-photographer.com

Infrared Images

John Freeman on creating digital infrared b&w pictures

Although infrared photography has been popular with film enthusiasts for years, not many people realise that it is possible to shoot effective black & white infrared pictures with digital cameras.

Like film, it will take a certain amount of experimentation to get good results, but the effort will certainly be worth it.

One of the advantages that digital infrared photography has over film is that you will be able to see the results instantly on the camera's LCD. With film you would have to wait for the exposed film to be processed and then re-shoot if you had either over or under exposed.

Not all digital cameras are capable of taking infrared pictures. The main reason for this is to do with the sensor that records the image. Modern digital cameras are manufactured with what are known as 'hot mirror filters' between the lens and the sensor. The purpose of these is to 'filter' out the wavelengths of the electromagnetic spectrum that are sensitive to infrared light. Technically speaking, these wavelengths are measured in nanometers (nm). Visible light, ie what our eyes are capable of seeing, fall into a range that is measured between 400 and 700nm. Infrared goes far beyond this range. Now my workhorse camera, the Canon 1DS MK2, filters out the infrared wavelengths so well

Above: Many people think that they are looking at a negative when they first look at an infrared picture, but have you ever seen black shadows in a negative?

Top: Due to the long exposure required for this shot, a certain amount of banding appeared in the sky area. In order to eradicate this I used the grain filter option in Photoshop
Above: Water enhances the infrared effect with the reflections of trees appearing white, as can be seen here
Left: This shot shows that a long exposure was necessary by the movement in the trees, which have come out blurred. However, this has added to the drama of the picture

that no matter how much I try, the results end up looking like a heavily fogged picture. It is possible to remove the hot mirror filter and replace it with a piece of clear glass. However, this will mean – if in fact you can perform the operation successfully – that the camera will be virtually useless for any other type of photography and it will make any warranty that you might have void.

A far better solution is to find an older camera; the one that I find gives consistently good results is the Fuji FinePix S2 Pro. This is a great camera and when used with a good lens such as the Nikon AF-S 17-35mm f2.8 the results can be simply stunning.

As long exposures are required, a tripod will be absolutely essential. I have found that in certain situations 30 seconds is not uncommon. The reason for having to use long exposures is that the filter that you will need to use – I used a Lee gel filter 87 – appears completely black. This filter transmits light above 730nm. The only problem with using this filter is that because it is a gel it is very susceptible to dirt, grease and getting scratched. Glass filters are available, such as the Hoya R-72 and the Heliopan range, but these are very costly so if you are not going to specialise in infrared it will be more economical to stick with the gel variety. **WDC**

Below: A low angle has emphasised the ferns in this shot. The use of an 87 filter has changed the green foliage to white perfectly

As long exposures are required, a tripod is absolutely essential'

technique

filters

Though tree and plant foliage produces stunning effects when shot in infrared, not all species react in the same way. When it works well this type of subject appears ghostly white, while the sky will go quite black creating a surreal image. But as the comparisons (bottom left) show, the pine trees have not reacted in the same way to using the 87 filter as the grass and smaller shrubs. Had I used an 89B filter the result might have been quite different as this is far more sensitive to wavelengths higher up the electromagnetic spectrum.

Another area to consider is the quality of the available sunlight. In this picture (left) the sun is falling directly on the trees in the distance. They have reproduced with striking white foliage. However, the effect is minimal on the trees on the right, which are in shade. It is preferable that the light is as even as possible.

If you are using gel filters, which normally slide into a holder, stray light will creep in through the sides nullifying the infrared effect. I stick the filter to the holder using Gaffa tape on all four sides, so it is light tight. With the holder ring screwed on to the lens, I compose the picture, focus making sure I turn off the AF, then place the holder on the ring. I then shoot using a cable release.

John's top tips

1. Because you will be using long exposure times you will need to use a sturdy tripod and cable release. These will eliminate camera shake.

2. It is impossible to say what a good exposure setting would be, as prevailing lighting conditions vary, but with the 87 filter and an ISO of 100 try 2 secs @ f 5.6.

3. Make sure that all stray light is eliminated as this will affect the infrared result.

4. Not all digital cameras are capable of infrared photography, especially more up to date models. To see if yours can, point your TV remote to your camera and press a button. If you can see it light up on your camera's LCD then you will be able to take infrared shots.

5. Look for older cameras on a site like Ebay. You should be able to get a first class model for a very modest price.

Little Angel

Each month, the WDC staff are given an image to transform. This month we convert an image to black & white using three different methods

WDC EXPERT
Hannah Bouckley

Avid photographer Hannah studied Photoshop at degree level and has worked on a range of photographic titles

www.whatdigitalcamera.com

A Hint of **Colour**

Hannah Bouckley does some masking and mixing

The first thing you notice about this picture is the little girl. However in its current format I felt that the background was too distracting; the chairs keep catching your eye and you inadvertently become sidetracked.

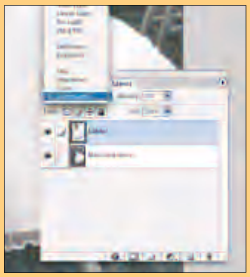
One way of rectifying this is to adjust the background and there are a number of ways that you can do this; working on a duplicate of the original layer, I decided to turn it black and white before adding a blur.

Photoshop provides the user with a host of ways to turn a picture to black and white; the most obvious method is to convert it to Grayscale. However, you then lose the colour information from the entire image and I needed to retain some colour for my central subject. So instead I selected the Channel Mixer from the Adjustments menu and selected Monochrome.

In order to isolate the girl I needed to select her, and I initially used the Magic Wand before switching to Quick Mask mode. By adding to the selection using the eraser tool, I had access to Photoshop's brush palette and could adjust the hardness and modify the selection with more accuracy.

Once the selection was complete I reversed it, revealing a black and white background and coloured central subject. The final move was to add a blur to the background to soften the edges of the chairs and reduce their impact.

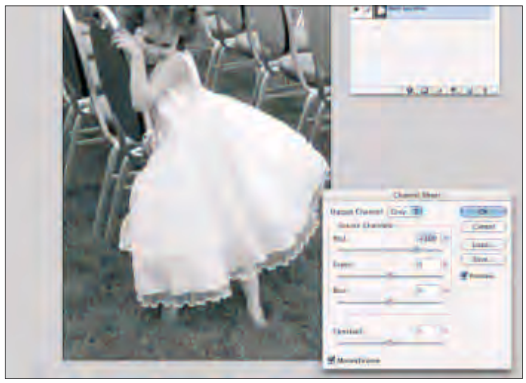
layer blends



We used the layer blend mode Color to add a tint to our subject's dress. However it is worth looking through the other blend layers to see what other effects are available. Try using Luminosity if you want the picture to stay black and white, while Vivid Light gives more of a harsh, stylised effect.

step 1 the channel mixer

Press F7 to open the Layer Palette. Double-click the Background Layer to activate it and call it Black and White. Make a copy by going to **Layer > Duplicate**, calling the new layer 'Colour' then turn it off by clicking the eye icon in the Layer palette. Click on layer 'Black and white' and go to **Image > Adjustments > Channel Mixer** and tick the box at the bottom called 'Monochrome.' Click OK and select the layer 'Colour' using the eye icon to turn it back on.



step 2 selecting and masking

Click 'Edit in Quick Mask Mode' in the tool palette and, using the black eraser, paint over the subject to select it. If you make a mistake, change the colour to white and paint it back. Click 'Edit in Standard Mode' to activate the selection, then go to **Select>Inverse** and hit delete to remove the colour background. Click the 'Black and white' layer and add a Gaussian Blur with a Radius of 6.0. Change the blend mode of your layer called 'Colour' to 'Color' and reduce the opacity to 70%.

WDC EXPERT
Jamie Harrison

Pro photographer and printer for 15 years, Jamie has used Photoshop since 1997 and became a journalist in 2000

www.whatdigitalcamera.com

Dream Time

Jamie Harrison blurs the edges of reality, using the calculations tool

There are more ways to make an image black and white than you can vibrate a large piece of wood at. For this image I used my favourite, the often-overlooked calculations tool.

This allows you to mix channels and make new channels or documents. For this I blended the red channel, which is great for producing really soft, smooth skin tones. I then made a new document and changed the image mode from multichannel to greyscale, then into RGB, which I prefer to work in, even for black & white, as this gives me the option of adding colour tones and gives better tonality to the image.

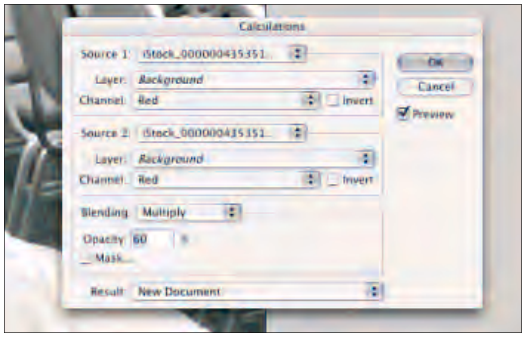
The background was very distracting so I made a copy layer and added gaussian blur. I then used the eraser tool to remove the blur from the girl, leaving just the surrounding areas out of focus. A new copy layer was made with more severe gaussian blur added, and I used the eraser to blend the two blur levels together. This gives the result of a gradual blurring. Finally, the burn tool was used to darken and remove any lingering background details.

layer via copy

This produces a copy of the image on top of the original – which is now the backround. Any global changes to the new layer can now be made, and the erase brush will allow you to go to selective areas of the original. Use the various fade options, either in the layers palette or the erase brush options, when subtlety is needed.

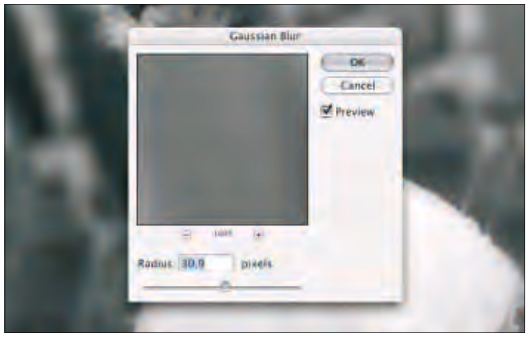
step 1 calculations

Go to **Image > Calculations** and select the red channel in both dropdown menus. This will provide those lovely smooth skin tones and also instantly get rid of blemishes on the subject's skin. Use the darken blend mode and set opacity at 60%; you can play with this to find the best effect. Select the new document option in the last drop down menu, to make a new copy of the image. The image is in multichannel mode, and you need to change it to greyscale before you can return to RGB.



step 2 blur and erase

Choose Layer > Layer via copy. Go to Filter> Blur> Gaussian blur and set the level at 4 pixels. Use the erase tool to 'paint' back in the subject with a soft-edged brush. Repeat the step for a second layer – this time I further increased the blur. Again use the erase brush, but increase the area around the subject to give an increasing and gradual blur effect from the subject to the edges.



WDC EXPERT
Steve Crabb

Originally from the Isle of Wight, Steve holds a diploma in photography and has worked in design for 20 years. A Photoshop artist for clients including Body Shop and the FA, he is also an author and magazine contributor.

www.whatdigitalcamera.com

Classic **Beauty**

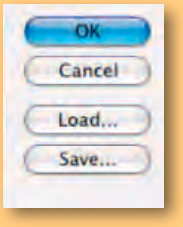
Steve Crabb uses the Hue and Saturation command to make a timeless image

A classic pose that needed a classic treatment, so I decided to use one of the quickest methods available in Photoshop, the Hue and saturation command.

This command produces a warm mono version of your image by desaturating all the colour to just their tonal values. The fact that it is doing this, allows you to still adjust the RGB channels with the drop down menu. Each channel can be altered by using the Brightness sliders: move left to brighten and to the right to darken.

To add to the classic pose, I thought it would be fitting to produce a wide black vignette for the corners. This helps to pull the eye directly into the focal point of the image without the clutter of background chairs to distract. Rather than produce a normal vignette which would be less blurry and cover all the way round, I pulled it wide to just clip the corners. This is reminiscent of old Victorian photographs where the photographic plate was exposed up to the edges of the lens.

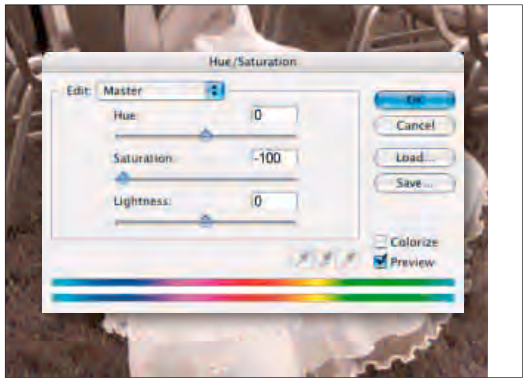
save and load



The save and load buttons can be found on a number of Photoshop palettes. The save button will automatically create a command file of the palette's current set up. The load command will load the command file into another image, replicating the previous palette set up.

step 1 desaturate

With your image open, choose from the image menu **Adjustments > Hue and Saturation**. Make sure that the drop down menu is set to Master so that all of the colour channels are affected. Use the saturation slider and move it to the left, all the way down to the end. If you need to adjust each channel's brightness, you can do this from the drop down menu.

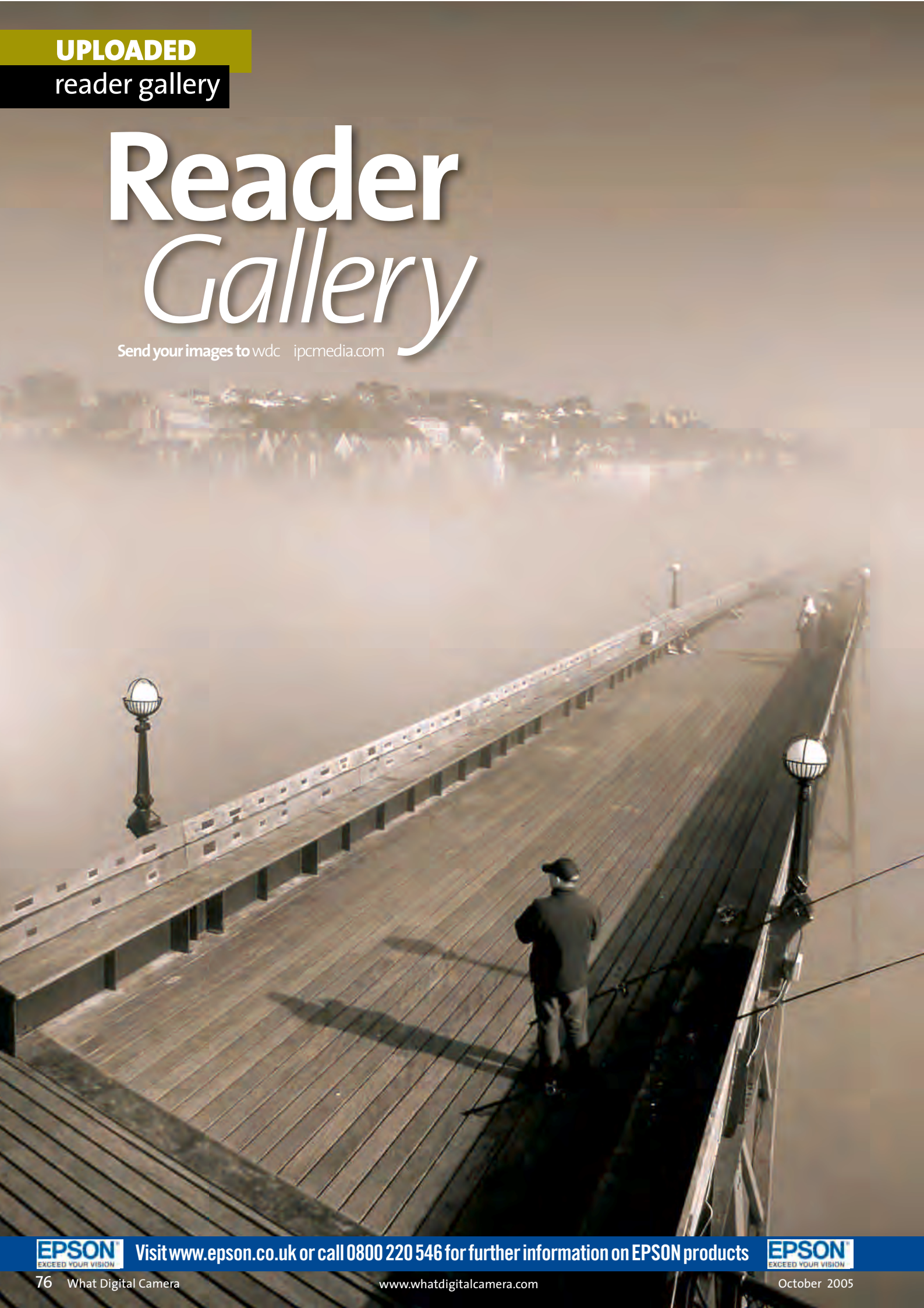


step 2 create vignette

Create the vignette by creating a new layer above the background image. Now select the oval marquee from the tool bar. Click and drag the marquee over the image, making sure you have covered enough area that the top, bottom and sides fall outside the image. Choose **Select > Inverse** from the menu bar and then fill with black. Deselect the marquee and apply the desired amount of gaussian blur to soften the edges.

Reader Gallery

Send your images to wdc ipcmedia.com



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Andrew
Proctor

I'm from Sheffied and bought a Nikon D70 last year, which really ignited my passion. I had two digital compacts before. I always shoot manual now and try to get everything right 'in camera'. I love shooting landscapes and macro, particularly insects.

CAMERA Nikon D70
DETAILS I was hoping for a dramatic sunset but it never happened. I used the Hoya R72 infrared filter to bring out sky detail. 18-70mm, 10sec, f/16

PHOTOGRAPHER Andrew Proctor
CAMERA Nikon D70
DETAILS This shot was taken on a very dull, grey day. I used the Hoya R72 filter to bring out detail in the sky and turn the foliage white, in order to get some contrast into the scene. 18-70mm lens at f/3.5, 1/60 sec, and ISO 1600

PHOTOGRAPHER Andrew Proctor
CAMERA Nikon D70
DETAILS The Bristol Classic Car Show was quite busy so I focused on details such as this fin, in order to prevent people from getting into the shot. 18-70mm, 1/125sec, f/6.3, ISO 400

PHOTOGRAPHER Andrew Proctor
CAMERA Nikon D70
DETAILS I wanted to see if it would be possible to take handheld shots using a Hoya R72 filter; the filter is so opaque you have to compose the shot almost blindly. By using the filter and a high ISO the photo has a graininess that I like

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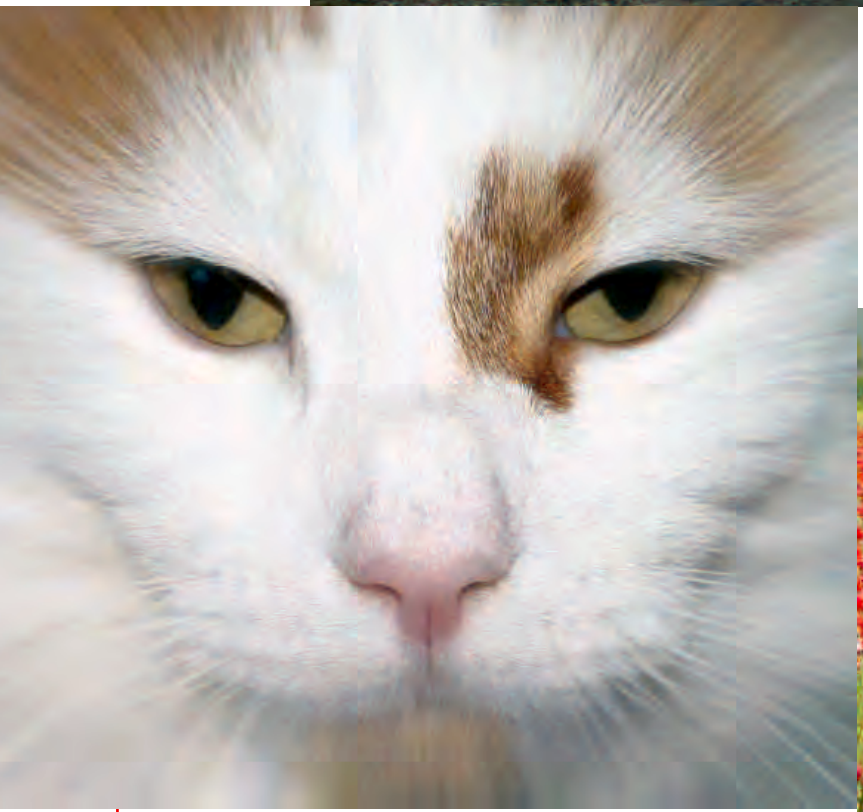
UPLOADED
reader gallery

NAME
Tina Bailey
CAMERA
Panasonic DMC-FZ10
DETAILS
I mainly shoot birds and insects and enjoy processing at home. This is Swinley Forest, Ascot. 1/400sec, f/8, 24.8mm



NAME
Terri Denardo
CAMERA
Sony Cyber-shot DSC S75

DETAILS
Living in Tuscany gives me acess to wonderful photo opportunities. This field of poppies was outside Sienna in Italy. Aperture f/5.6, ISO 100

NAME
Claire Ainsworth
CAMERA
Canon EOS 300D
DETAILS
I have been interested in photography since using my parents' Instamatic as a child. I have enthusiasm for taking portraits in natural and relaxed environments. Here I used a shutter speed of 1/60 sec, an aperture of f/5.6, focal length of 48mm and ISO 400

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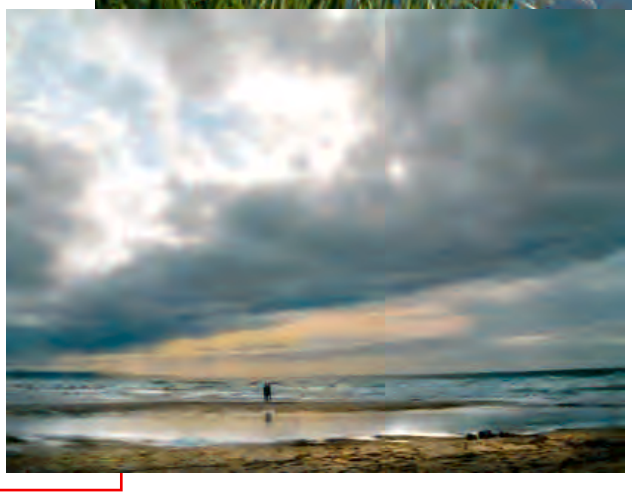
NAME
Margaret Warren
CAMERA
Canon EOS 300D
DETAILS
I live in Marlow, Bucks and have been using digital for three years. This was taken in Peru, 1/250 sec, aperture f/9 and ISO 100

NAME
Steve Betts
CAMERA
Minolta A1
DETAILS
I live in Farnborough, Hampshire. Digital photography is fast developing and available to everyone. Here I used aperture f/7 and ISO 100

NAME
Tim Harvey
CAMERA
Fujifilm 4700 Zoom
DETAILS
I live in Bracknell, Berkshire. Here I used f/7, shutter 1/900sec, ISO 200



NAME
Steve Fisher
CAMERA
Canon EOS D60
DETAILS
I've been taking photos for 40 years and using digital for the last four. This is Hilton Court Gardens in Pembrokeshire.
1/180 sec, f/8, ISO 100

WIN £100 OF VOUCHERS FROM WAREHOUSE EXPRESS

FANCY WINNING A £100 VOUCHER TO SPEND AT WAREHOUSE EXPRESS?
Just submit your best photos to our web gallery, where your peers rate them. The month's top-scoring shot wins a voucher from the top online photo retailer and gets published here, along with the best of the rest.
To enter, email up to 3 photos to: ***wdcgallery@ipcmedia.com****. Include your name, plus camera and caption details. Visit the WDC web gallery at* ***www.whatdigitalcamera.com*** *for more details.*

YOU CAN ALSO WIN £100 VOUCHER JUST BY VISITING THE GALLERY!
That's right, you don't even have to send us any pictures to snaffle yourself a £100 voucher. You just need to visit the WDC website and vote for your favourite pictures. Then go to the competitions section of the website and answer the question posed on page 10 of this issue. The winner will be drawn at random.
To enter, visit the WDC web gallery at ***www.whatdigitalcamera.com.***

PHOTOGRAPHER
of the year 2005

WHAT DIGITAL CAMERA

Photographer of the Year

Winners of Round Four:

Faith

in association with

OLYMPUS AOL

Dheeraj Paul triumphed in the fourth round of our Photographer of the Year competition with this stunning photo taken at the EID-UL-FITRE festival at Jama Masjid in New Delhi.

Hundreds of worshipers join in prayer before greeting each other and distributing sweets. Dheeraj took the photo using a Canon EOS 5 and 15mm fisheye lens. He wins the 8MP Olympus E-300 DSLR worth £650, which comes with a 14-45mm lens.

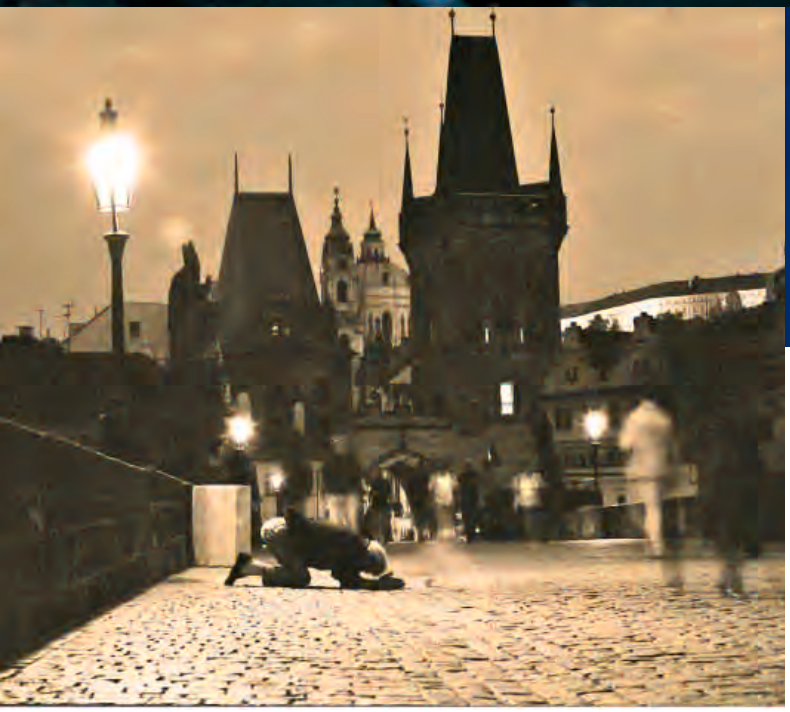
Marty Garland wins second prize – the 7MP Olympus C-7070 Wide Zoom – for 'Faith of Our Fathers,' which was taken in a derelict house in Dundalk, Ireland, using an Olympus E-20P. Third place and the 4MP Olympus mju mini go to Rosalyn Nicholson for her atmospheric image 'The Cross,' which was taken using a Canon EOS 300D. **WDC**

WINNER:
Dheeraj Paul
Prize: Olympus E-300

2nd: Marty Garland
Prize: Olympus C-7070

3rd: Rosalyn Nicholson
Prize: Olympus mju mini

For more information on the prizes visit **www.olympus.co.uk**



Highly *Commended*
Fiona Halliday

Highly *Commended*
John Scivier

Round Five Leisure

We all love our leisure time – and it can make a great subject for photography. Perhaps the most photogenic leisure pursuit is sport: football, motor racing, topless darts... But let's not forget our hobbies and interests too: fishing, kite flying, stamp collecting, playing the ukelele – even sat in our armchair with the TV remote in one hand and a bowl of crisps in the other. Your picture can be colour, black & white, a portrait, candid, still life or action shot. In fact, anything you like as long as it says 'leisure.'

CLOSING DATE: 23rd Sept 2005

For more information on AOL visit **www.aol.co.uk**

Evening Class

Send in your images so photographer, author and Photoshop guru Martin Evening can pass his verdict and suggest improvements Send your images to wdc@ipcmedia.com

enter & win

WANT MARTIN TO CRITIQUE YOUR WORK?
Submit up to three images, including, for each picture, a description of what it is, and how you came to take it. Also include details of camera used, and any image editing. Please add your postal address and email or phone number, and say if you use a PC or a Mac.

The images should each be a minimum of 5MB, then save your images as JPEGs to make them suitable for emailing.

The winner each month will bag a copy of Adobe Photoshop CS2, the professional image-editing software that features groundbreaking creative tools to help you achieve extraordinary results. With more efficient editing, processing and file handling too! One runner-up will receive Photoshop Elements 3.0. Visit www.adobe.co.uk.

Email your entries to **wdc@ipcmedia.com** or post them *(do not send original prints)* on CD to:

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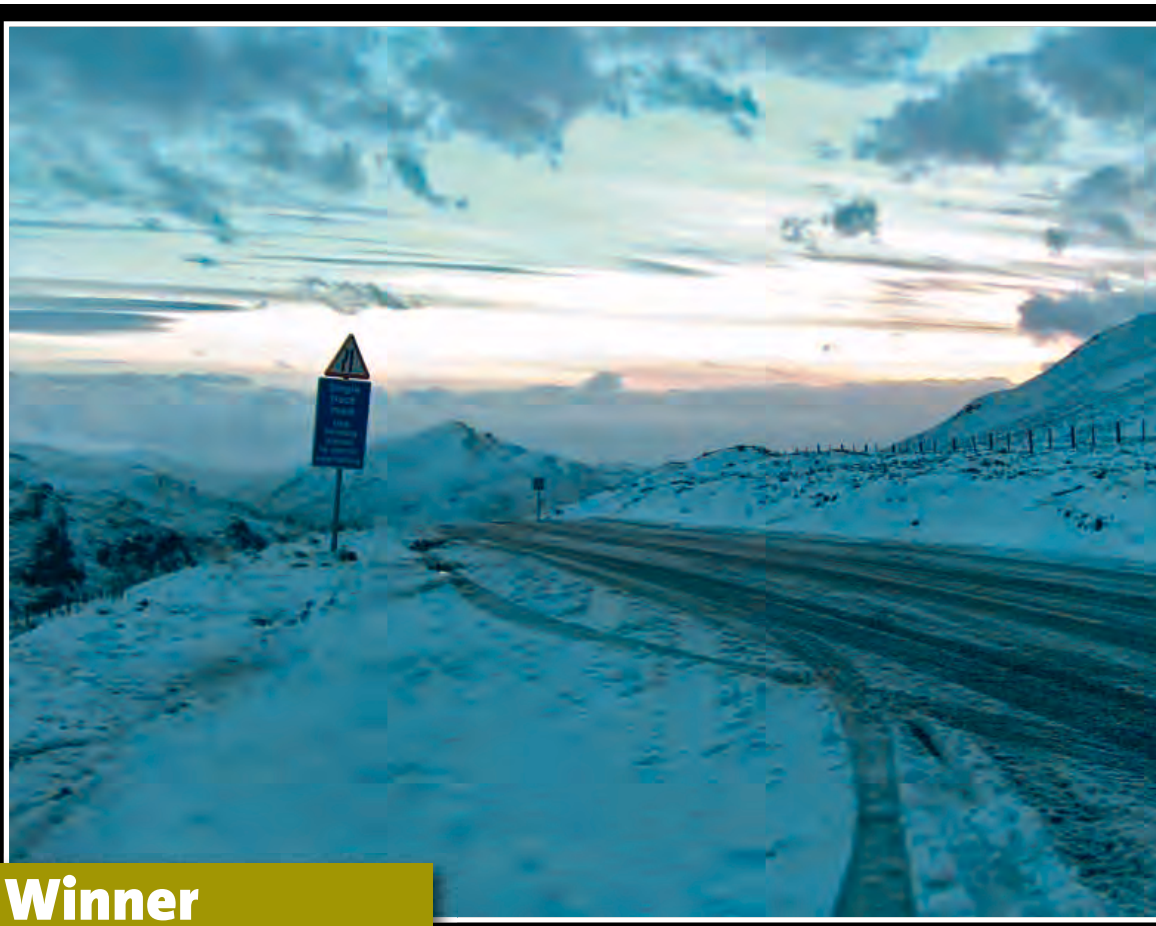


Winner October 2005

Fort William

By Carl Dewhurst
Camera HP 945

'I enjoy your magazine and thought I would send a selection of my better pictures from my HP945 camera. I have only had it for 12 months and I am still learning about the world of digital photography, though finding it very interesting and fun.
This is a view of the road back to Inverness, looking towards Fort William. It was remote and I tried to get this across in the picture. I quite liked this snap!'

Martin says: This photo was most likely taken late in the day as the sun was setting. The bright sunlight emanating from the centre of the picture provides a nice backlight to the clouds at the top of the frame while the remainder of the landscape is evenly illuminated by an overcast cold light. The wideangle view adds a sense of depth. These factors combine to create a dramatic winter landscape that is this month's deserved winner.

Watching You

By Martin Coleman
Camera Canon 10D

'I took this candid at a wedding from the church balcony. No flash, 1/30sec, Canon 70-200mm lens with Image Stabilizer. It had a levels tweak in my RAW processor and some sharpening.'

Martin says: I like the concept: a digital photo of someone taking a digital photo of a wedding couple. This shot is also testament to how very successful image stabilising lenses are in helping to counter camera shake. I use the same Canon lens and it really makes a difference when shooting handheld. Note, if using a tripod, the image stabilising mechanism must be switched off.

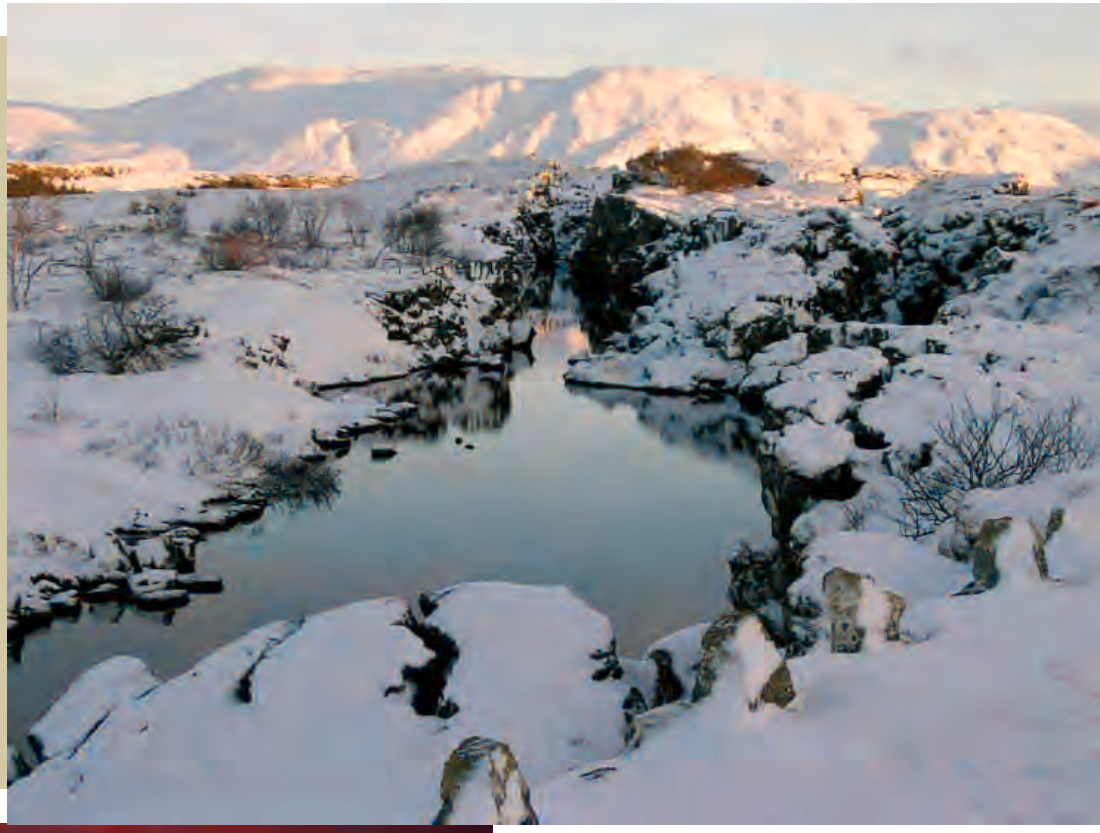
>>

Ice Land

By Matthew Cox
Camera Nikon 3200

'This photo was taken in Iceland in February. The stream was formed by the meeting of two tectonic plates, where the North American meets the European.'

Martin says: As you can see there is a wintry theme in several of the pictures submitted to this month's readers' gallery. The story behind this picture is quite interesting and I reckon that Matthew has done a fairly good job of capturing the scene to illustrate the meeting of these two plates. The mountains and the bright sky in the background could have led the automatic metering in the camera to produce an underexposed image. But Matthew wisely exposed for the foreground. So remember, if shooting a snowy landscape, or any scene where there is a lot of bright light, you may want to compensate slightly with a brighter exposure than that indicated by the camera.



Scrabo Tower

By Bill McAskie
Camera Fujifilm 4700

'This is Scrabo Tower at Newtownards, on Strangford Lough, Northern Ireland. I took the photo in February with my Fuji set to auto. Saturation was increased.'

Martin says: A lot of sunset pictures are submitted,so we only select the best images to comment on. The tower on the hill in the background nicely breaks up the horizon and the reflections in the water help balance the picture. Bill says he increased saturation. This is a wise move; un-manipulated images of sunsets can often look a bit flat. Here, boosting the saturation has produced a more natural looking photo.

Runner Up
October 2005

Ski Run

By Tom Croft
Camera Sony DSC P120

'This is a picture of my recent ski trip to Chamonix, France. It was shot in snowscene mode and I was half way down the Allouds run. I stopped by this sign as I particularly liked the composition containing the sign, the pine tree, Mont Blanc and the harsh wind blowing the snow over the mountain. I switched to centre AF and focused on the sign before I took the picture. I increased the contrast in Elements.'

Martin says: This has a well-balanced and compelling composition. And the wide depth of field draws your eye in from the close-up view of the sign in the foreground to the skier and mountains in the distance. Tom did the right thing in forcing the camera's auto focus to target the sign as this ensured the most prominent part of the picture was sharpest. I try to discourage people from using the Brightness/Contrast image adjustment as it is not designed for use with photographic type images, but when I checked the histogram I noticed that Tom had got the exposure levels spot on (but I still recommend you don't use it)!

San Siro Stadium

By Shane France
Camera Olympus C-4040

'I have just started with digital. This was taken at the San Siro Stadium during a Milan Derby one Sunday evening. Every game the supporters from both teams taunt each other at half time, the home fans (here AC Milan) display flares during the interval. Resized and slightly adjusted colours.'

Martin says: Overall, I think Shane has done a fairly good job of showing us what was going on in the stadium that evening. Note that the lights coming from the flares are quite bright and there was no special need for him to use a tripod in order to get a sharp picture, although of course it always helps in a situation like this if you can keep the camera as steady as possible!

before

Digital Surgery

What's wrong with this picture? Martin formulates his diagnosis and nurses it back to health

Pavement Pattern

By Marc Delaney
Camera Nikon-8800

here's how

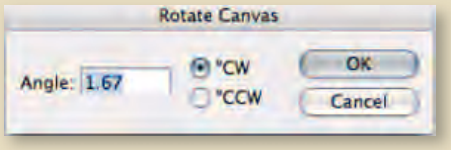
Martin's straightening remedy

'This pavement pattern is something I came across whilst strolling in Cardiff Bay. I used a low angle to obtain the 'cross' pattern. I shoot all my photos as raw images, then convert to tiff. All my raw images always need to be subjected to levels and curves refining in Photoshop 7. Also I slightly saturated the colours.'

Martin says: What strikes me most in this picture is that it was taken at an uneven angle. Very few photographs shot handheld are ever perfectly straight. This is not something you are always likely to notice. But if you shoot a subject containing lines that should be horizontal, it is much more obvious to the eye when the camera is not straight. Here, the camera should have been tilted more to the right, to level out the horizontals. Let's look at one way to correct this using Photoshop.

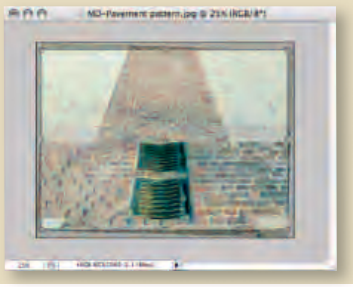
step 1 measure tool

I selected the measure tool in Photoshop that is grouped with the eyedropper and color sampler tools in the Tools palette and dragged with the measure tool to follow the line of the paving stones that I wanted to be horizontal. I then went to the Image menu and selected Rotate Canvas > Arbitrary… This opened the Rotate Canvas dialogue and as you can see the measured angle of the measure tool is automatically entere–d for you into the Angle section. All you have to do is to click OK to apply the canvas rotation.



step 2 crop and drag

Once the picture has been rotated you will end up with an image looking like the one shown here, in which extra canvas has been added using the current background colour. To trim the image, I selected the crop tool and dragged to define an area within the borders of the image to produce the finished result here that shows the image with the corrected horizontals.



after

Martin Evening
Photographer and Photoshop guru

Martin's latest book, Adobe Photoshop CS2 for Photographers, is on sale in bookshops now, priced £27.99. For more details about this and other great photography books visit www.focalpress.com.
For more about Martin visit his website at: ww.martinevening.com

the Help file

A problem shared *is a problem solved!*

Send your questions to us at **wdchelpfile@ipcmedia.com**

Nigel Atherton

Ian Burley

Jamie Harrison

Hannah Bouckley

Steve Crabb

TIFF Troubles

From: Graham Swanson
Subject: Ricoh Caplio GX TIFF file problems

Q Thank you for the Ricoh Caplio GX I recently won in your competition. I had just bought my wife a Caplio G2 so we are almost compatible! But I have a personal problem with the GX. I am very new to (Windows) XP and digital imaging. I have no problem with JPEG images but with a TIFF file I can only view it on DU 10 x. As soon as I drag it over to join my JPEGS on Ricoh Gate they change to an unprintable Document Files. I have been told that TIFF will not burn to a CD but how can I print it? Can I e-mail it – this would take a long time! Can I view it on a TV screen? I will not use non-compressed files often because they zap the batteries.

A *The TIFF format is quite complex, with many variations. For example, did you know that TIFF files can be JPEG encoded? Some kinds of TIFF file only have limited support in general imaging applications. You should certainly be able to burn to a CD though. Better image editing programs, like Photoshop Elements, will open variations of TIFF file. A handy tool for converting odd image file formats to more usual types is Irfanview, free from www.irfanview.com.* IB

Shooting with *mono in mind*

Nigel Atherton

www.istockphoto.com

ABOVE: B&W is great for portraits, stripping away the distraction of colour
BELOW: Use mono to explore shape, pattern, shadow, texture and mood

The traditional way to approach black and white photography with a digital camera is to shoot it in colour first and then convert it to mono later. This gives the user much more control, since each colour channel can be adjusted individually.

There are, however, good reasons why you might want to shoot black and white in-camera – especially if you have a direct printer with card slots or PictBridge and you do not own (or don't wish to use) a PC first.

Not all cameras have a built-in mono mode, but those that do tend to hide it in the depths of the menu, either under a general 'colour' heading or perhaps as a scene mode.

Whether you shoot B&W in-camera or plan to convert them later you'll need to look at the world through different eyes to get good results, and shoot the right subjects. For example, scenes that rely on colour for their impact (such as carnivals) are unlikely to work as well in mono. And bear in mind that colours that look quite different in the real world may reproduce the same in mono. For example, red, green and blue may all go the same shade of grey (though of course you can alter this using the channel mixer in Photoshop).

Subjects that work best in mono are those that explore shapes, textures and the play of light. Portraiture also works especially well in monochrome, because it seems to capture the soul of the subject without the distraction that colour can provide. It can be more flattering too, as blotchy skin, spots, pink cheeks etc all disappear.

Black and white film users have traditionally used filters on the lens to manipulate the tones in the image (especially to darken a sky and enhance cloud detail, which yellow, orange and red filters do to varying degrees).

Although this can work on a digital camera too, on-lens filters do affect the contrast and exposure, so some Levels correction will be necessary. Red filters also add a degree of noise to the image.

Byte Size

Flashless Archiving

From: Mark Skippen
Subject: Copying documents without flash

Q I spend my days in archives using 100-year-old sources for my PhD. It has recently come to light that most archives are happy for a digital camera to be used for copying these journals and books etc. I would much rather do this than use expensive photocopying techniques. However they tend to stipulate that flashes are not to be used, presumably to prevent any distracting of the other users. I am new to the world of photography and am considering purchasing a digital camera for less than £200 if possible. Is there a product on the market that could handle taking close-up pictures, in a sometimes darkish environment, to a reasonable quality, without a flash?

A *I decided to reproduce the conditions you might encounter. I used a five-megapixel Panasonic Lumix DMC-FX8, which features an image stabiliser, to photograph a page of the magazine without flash and with just a 60 Watt light bulb in the room. The page was slightly blurred, but perfectly readable. The FX8 is out of your budget, but the four-megapixel Panasonic Lumix DMC-LZ1 is also image-stabilised and has an excellent lens, for around £179.* **IB**

Top Tips

GET MONO INSPIRATION
For ideas and inspiration on b&w photography study the masters. Browse websites such as www.hultonarchive.com or www.corbis.com for classic mono. Better still, visit the public library and study books on Ansel Adams, Irving Penn, Sebastaio Salgado, David Bailey, photographers from Magnum Photos (such as Henri Cartier-Bresson) and dozens of other legends of b&w photography.

OM and New

From: Mike Marshall
Subject: Using old OM lenses on an E-300

Q I am considering purchase of a digital SLR; and am naturally keen to be able to re-use the several very good lenses I have bought over the years for use with my venerable Olympus OM10. I am looking at the Olympus E-300, and have been told by Olympus that a (free!) adaptor is available to enable use of my lenses.

They pointed out that the auto focus (AF) functions would not be available, and that there may be some slight degradation of quality relative to the dedicated 4/3 lenses, but agreed that it was an excellent way to avoid the loss of use of my existing lenses.

I am concerned, however, that all of the dealers I have spoken to have never heard of this offer from Olympus – one dealer insisted that it was not possible!

A *If you register the purchase of a new Olympus DSLR, you can indeed claim a free OM lens adapter, though this deal is not actively promoted by Olympus. Many report very good results with certain lenses. You can use TTL metering, but you must manually stop the lens down, which can be fiddly. Reports suggest the meter can slightly overexpose so experimentation is key. Stopping down the aperture a couple of stops will often help sharpness. Don't forget the 2x focal length factor. Adapters for other lens mounts are also available from www.camera-quest.com.* IB

Jargon Buster

From: Trevor Doyle

Q I have just read the article in issue 98 about the new Nikon SLR. What is/are:
a) Gretag Macbeth colour patches
b) `AE` - used in reference to exposure.
Please remember that the readers are not technically qualified with degrees in science!

A *Gretag Macbeth cards are used by digital camera testers to see how accurately colours are represented and also used for camera and scanner profiling. Each card is composed of a selection of colour squares or patches that are the same size and arranged in rows, many representing common tones such as sky and skin. By taking a photograph of the card we can establish how accurate the colour representation of a particular camera is and make corrections. Program AE refers to Automatic Exposure; when the camera is set to this mode the shutter speed and aperture are selected automatically. We appreciate technological jargon can be confusing and do attempt to explain whenever possible without being repetetive and patronising. HB*

Camera Swap

From: Ian Alfred

Q I am looking at replacing my two current digital cameras: a Kodak 3400 and an Olympus C350. I prefer the older Kodak for cycle rate and the fact that it still works while skiing (ie -20°C Temp range), and the size and weight of the Olympus as it suits my large hands. I'd like to use the new camera while sailing & skiing.

A *It may be worth considering the Olympus [mju:] 500 and 800. These are both weatherproof and are designed for use in a variety of weather conditions. The PT-026 case enables the [mju:] 500 to be used underwater up to 40m. HB*

Not Magnificent 7

From: David A Ellis

Q I have a media card with over 100 images on. When I put the card into the memory reader of my computer, all the images apart from seven come up. The other seven can be read in my camera. The trouble is the camera can't read the other 100 or so images that the computer can read. There seems no way that I can get the seven images up on my computer, they seem hidden somewhere on the card.

A *That's very strange. I'd suggest this: when the card is in the card reader, copy all the images you can to your computer. Then insert the card in the camera and connect the camera to your computer via its USB cable. With luck, the seven elusive images will be readable. If so, copy them and then use the camera to reformat the card. Take some test shots to fill the card and see if the problem reoccurs. If all else fails, see our test feature on image recovery solutions (WDC, July 05). IB*

What is *Greyscale?*

It's not all black and white in this business you know!

Image: www.istockphoto.com

American spelling, Grayscale, but don't let that confuse you! This is actually an image mode that is devoid of any colour pixels.

Like RGB mode where pixels are made up of varying colours between Red Green and Blue, in a Greyscale image each pixel is represented by a single sample value representing overall luminance made of 256 shades of grey. Each pixel has a brightness value ranging from 0 (black) to 256 (white).

This mode is a one-channel work space, which means there will be only one layer in the channels palette, Grey.

You can add to these, but they will be only Alpha channels, which are used for storing masks etc.

Obviously when converting to Greyscale, you will lose the options that are available to colour images such as Hue and Saturation and Channel mixer, but you can still adjust the tone of the image with the use of curves (Photoshop CS) and levels. See opposite page for more on using Levels and Histograms. ***SC***

Upgrade Woes

From: Marilyn Firth
Subject: Wildlife photography

Q We are looking for the best digital camera to photograph wildlife (birds and animals) on safari, so far we have been blinded by jargon in camera shops. Currently we have an Olympus C-50, but feel we need to buy a digital SLR camera plus a telephoto lens, we are expecting to pay £800/£900. Please advise us, we don't want to upgrade to another camera in a year or two because we have bought the wrong one.

A *You don't have to invest in a digital SLR to get some great wildlife photographs; there are many cameras with built-in lenses that offer telephoto capabilities for a lot less money. The recently announced Panasonic DMC-FZ30 has a 12x optical 35-420mm lens and includes an optical image stabilizer (a feature well worth considering) to help reduce the effects of camera shake. It's reviewed next month but its predecessor the DMC-FZ20 scored 89%. You could also consider the Panasonic FZ-5, Sony H1 or Canon S1 IS, all of which offer extended telephoto capabilities. As for digital SLRs, the Nikon D70s and Canon EOS 350D are good. You can get them in a kit for around £600, which would leave you enough to invest in a decent telephoto lens. In our September issue we pitted the cameras against each other and the Nikon proved triumphant; however they are both superb and you won't be disappointed with either one.*

Compact cameras are more convenient and portable. However, if you are serious about your photography then consider a digital SLR. HB

SlideShow Blocked

From: Michael Hollingshead
Subject: Low resolution CD

Q I purchased the Adobe Photoshop Elements 3.0 software following the interesting article in the magazine written by various professional contributors. Philip Andrews' article on the custom slide show option interested me greatly as it gave you the opportunity to view the slide show via a CD on the television. Unfortunately, when I produce a slide show, produced I believe in the WMV format, the preview shows the slide show to be badly pixellated or blocky! Can you please advise on how to overcome this problem and obtain clean viewable images.

A *It's likely that you did everything right. The problem is the VCD (Video CD) format is low resolution at just 352 x 288 pixels. SVCD (Super Video CD) is better, at 480 x 576 pixels, but doesn't appear to be supported by Elements 3.0. A more specialist slide show builder program, like Magix Photos on CD & DVD 4.0, is worth investigating. This supports both SVCD and full DVD format authoring and disc creation.* IB

Top Tips

DUOTONE

When you want to create a Duotone or Tritone in Photoshop you must convert your image to Greyscale first.

You may have used the Channel mixer or Hue and Saturation to do your Black and White conversion and if you have, you will still be in RGB mode. Duotones can only be created when all the colour information is removed from the image, which includes the RGB channels.

The resulting image will be using the Duotone colour work space which contains only one colour channel.

Memory Card choice

From: Peter Roberts
Subject: Memory Cards

Q I have purchased a Canon 350D to use on my holiday touring the reserves in India, hoping to obtain some fair wildlife shots. My problem is which memory card is best suited to my camera. Having looked in 'What Digital Camera' I have managed to confuse myself with the differing makes and specifications on offer. Any suggestions? As you might suspect I am a first time user of a digital camera and have very little technical knowledge.

A *There are several things you need to consider when buying a memory card. First and foremost is capacity. It is best to buy the largest size that you can afford; there is nothing worse than running out of space especially if you are going somewhere photogenic like India. 1Gb is a decent quantity; however if you can stretch to 2Gb then great. Memory cards can occasionally be prone to error, so there is some credence in buying two 512Mb cards or two 1Gb cards, just in case one has a fault when you are on location. There are many manufacturers supplying memory cards and it can be tempting to go for the cheapest on offer. While these cards may work adequately, having spent a fair amount of money getting kitted out, you don't really want to then scrimp over the card quality. Try to go for an established brand like SanDisk, Lexar, Kingston or Fujifilm. As well as a consumer card range many manufacturers have a professional line – however, these can be a bit more expensive and the standard line is fine for most photographers.* HB

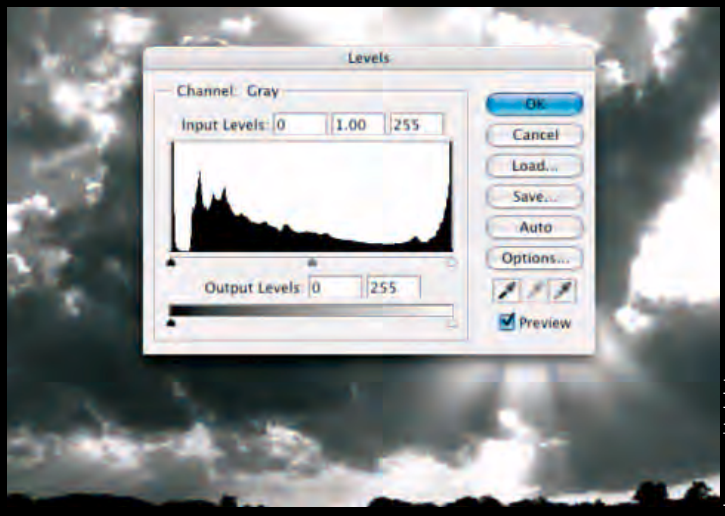


Image: www.istockphoto.com

Using *Histograms*

Fine tuning your black and white images can become quite involved, depending on the image's tonal values. If the photo is flat and dull, you may decide to increase the contrast and enhance the blacks and punch up the whites.

One of the best ways to do this in Photoshop is to use the Levels Histogram. Found in the image menu > adjustments > levels, the levels palette offers a bar graph that displays the analysis of the images' dynamic range. In simple terms, it is the distribution of greys across the image: the right side displays the highlights (whites), the middle shows the mid point (greys) and the left side displays the shadows (blacks). If the image has large spikes like our example above, this indicates where a high concentration of a particular tone has occured;in this case, it is the strong highlights.

The arrows underneath the bar can slide up or down the histogram. This is to 'clip' the parts of the image's tone that need to be removed or enhanced.

You can also enter the numeric values directly into the input fields above the bar. **SC**

Ask Adobe

Got a question on Photoshop or Elements?
Ask Adobe's imaging guru **Terry Steeley**

Terry Steeley *represents Adobe as a speaker at seminars and trade shows worldwide, and is recognised as a world-class Photoshop specialist. His popular Photoshop4Photographers seminars cater for all abilities and cover all aspects of capturing and editing digital images.*
Terry is also the author of Iridius Actions, a CD collection of over 90 production and creative actions for Photoshop designed to streamline and automate common tasks. For more details visit ***www.photoshop4photographers.co.uk***

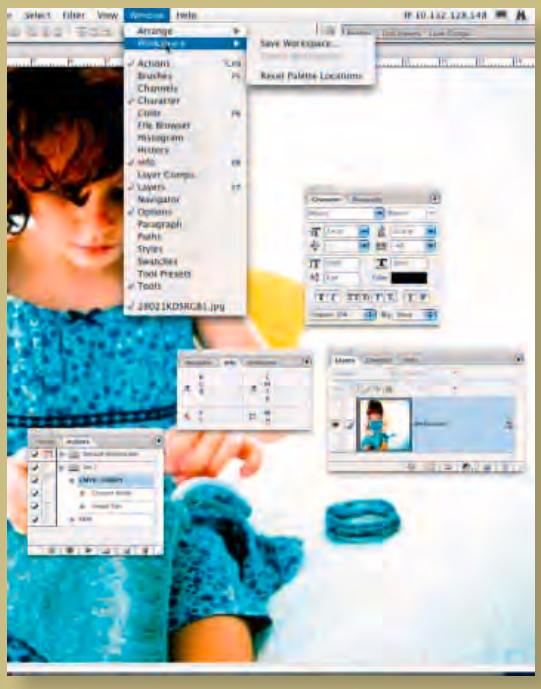
Palette Mayhem

From: Gordon Andrews

Q When working in Photoshop I am frequently finding that my monitor is too cluttered with floating palettes. What can I do

A *Adobe Photoshop's Workspaces feature will overcome your cluttered working environment problem. Originally introduced into version 7, Workspaces allow you to manage only the palettes you want available and their on-screen locations, storing them as a preset. Usefully, you can organise and store as many presets as you need, creating workspaces for different processes; colour correction, retouching, text editing and more.*

To save a workspace, open and arrange only the palettes you want to be available when the Workspace is active. Then choose... Window > Workspace > Save Workspace. Name your Workspace and tick the Palette Locations check box to remember your preferred layout. Click Save. To recall a stored workspace, select Window > Workspace and select the preset name from the list.



Custom Brushes

From: Paul Clarke

Q Recently I've been experimenting with some of the default brushes supplied with Photoshop. I'd now like to create some of my own but do not know where to start.

A *Brushes are easy to create. Choose... File > New and enter a value for the Width and Height of 6cm. Enter a Resolution value above 240ppi, set the Color Mode to Greyscale 8-bit and choose White for the Background Contents. Click OK. 8-bit greyscale images are based on 256 shades of grey and, when creating brushes, black represents solid areas and white transparent areas. Press D on the keyboard to restore the Foreground fill to black and create your brush in the canvas using a drawing/ painting tool. When you are satisfied with the brush design, select Edit > Define Brush Preset, enter a Name and click OK. Now, when you go the Brushes Preset Picker, the last brush in the list will be the one recently created. For more adventurous brushes, experiment using the additional options in the Brushes Palette.*

The HOT 100 cameras

The UK's best marketplace for all things digital

Over the following pages you'll find the specifications and ratings of more than 190 cameras, printers, scanners, software programs and accessories...

WHAT DIGITAL CAMERA

Welcome to the UK's best digital photography Buying Guide. Here you'll find the specifications and our verdicts on the UK's top 100 digital cameras, plus the most popular accessories.

If it isn't here it's either not good enough, discontinued (though it may still be available from some dealers) or too new to have been tested yet. (It can sometimes take a few weeks for a test to appear, depending on space, publishing schedules, and when we get the sample.)

Products are judged by how well they serve their market. Those that score 85% or more in our tests are awarded the coveted WDC Choice rosette.

With many more accessories available than we have the space for, we concentrate on the best-quality products from the most respected brands in their field. All have been chosen and tested with the enthusiast in mind.

The Buyers' Guide should help you choose the right product for you. But for more information why not read the full test report first? A pdf or reprint of every camera test, including the full specs and ratings, can be emailed or faxed to you for just £3.00 by calling 01707 273 773 or visiting our website.

Alternatively, you can order a back issue from: John Denton Services, Unit One, A1 Parkway, South Gate Way, Orton Southgate, Peterborough, PE2 6YN. Telephone: 01733 370800. Better still, why not take out a subscription to What Digital Camera and be the first to read the full tests on every new camera and accessory – and get loads of technique and inspiration into the bargain? Call 0845 676 7778 for the latest deals and to sign up. **WDC**

Using This Guide

UP TO £200 | £200 - £300 | £300 - £400 | £400 - £600 | £600 - £7000

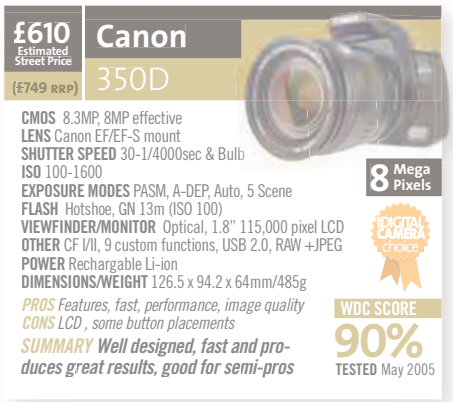
STREET PRICE
Estimated street price at time of press. (Prices may vary)

RRP
The price at launch. Test rating based on this price

SPECIFICATION LIST
The key features you should check when comparing models

EXPOSURE MODES
P= Program, A = Aperture priority, S= Shutter priority, M = Manual

SUMMARY
A precis of our test verdict


£610
Estimated Street Price
(£749 RRP)
Canon
350D
CMOS 8.3MP, 8MP effective
LENS Canon EF/EF-S mount
SHUTTER SPEED 30-1/4000sec & Bulb
ISO 100-1600
EXPOSURE MODES PASM, A-DEP, Auto, 5 Scene
FLASH Hotshoe, GN 13m (ISO 100)
VIEWFINDER/MONITOR Optical, 1.8" 115,000 pixel LCD
OTHER CF I/II, 9 custom functions, USB 2.0, RAW +JPEG
POWER Rechargable Li-ion
DIMENSIONS/WEIGHT 126.5 x 94.2 x 64mm/485g
8 Mega Pixels
PROS Features, fast, performance, image quality
CONS LCD , some button placements
SUMMARY Well designed, fast and produces great results, good for semi-pros
WDC SCORE
90%
TESTED May 2005

MAKE AND MODEL
Cameras are listed in ascending order of price

SENSOR SIZE
How many megapixels? A guide to image quality

AWARDS
A gold rosette is given for highly recommended models

OVERALL SCORE
Total score out of 100, plus date model was tested

About the Ratings

RATINGS Products are rated out of 20 by five criteria which, when combined, provide a mark out of a hundred.

FEATURES How well specified is the product? Does it have all the features that you're likely to need?

DESIGN Is the design stylish or ugly? Comfortable or awkward? Functional or impractical? Design is about handling as well as looks.

PERFORMANCE How does it handle? Are the buttons well placed? Is the menu simple? Is it responsive or sluggish?

QUALITY How are the results? Sharp or soft? Is the colour accurate? Do the images suffer from noise, fringing, distortion?

VALUE Is it competitively priced? How does it compare with its nearest rivals? Our scores are based upon the retail price at launch (RRP).

In this volatile market prices change almost monthly, and as cameras become cheaper they inevitably become better value. It would be impractical and confusing to change the scores every month, so we include the RRP along with the current average street price. Where there's a big difference it can be assumed that the product is now better value than when it was tested, but also that it may be coming towards the end of its natural shelf life. Highly recommended cameras receive the WDC rosette.

TAKE THE 360° VIRTUAL TOUR

On The Web

You'll find product photos and 360° Quicktime tours of virtually every current camera, plus sample test images taken by our reviewers for you to view or download. You can also buy tests or back issues online, or subscribe. In addition you'll find daily news on all the latest product launches, reader forums, a gallery for your own pictures, plus loads of features and techniques, useful links, competitions, events listings, bookshop and lots more, just visit www.whatdigitalcamera.com

WHAT DIGITAL CAMERA www.whatdigitalcamera.com

£90 Estimated Street Price (£120 RRP) — Olympus 370

CCD 3.2MP
LENS 38-114mm f/2.9 – 5.0
SHUTTER SPEED 2-1/2000sec
ISO Auto 100-400
EXPOSURE MODES Auto, Prog AE, 4 Scene modes
FLASH GN 11
VIEWFINDER/MONITOR None/1.5in LCD
OTHER xD, 320x240 movies to limit of storage, USB interface
POWER 2x AA or NiMH rechargeable AAs
DIMENSIONS/WEIGHT 87.5 x 62.5 x 38.5mm/140g

3 Mega Pixels

PROS Design, easy to use, price, excellent 2cm macro
CONS No optical viewfinder, noisy images

WDC SCORE **82%**

SUMMARY ***Simple to use and capable considering the price***

TESTED Apr 2005

£130 Estimated Street Price (£149 RRP) — Nikon 4600

CCD 3.9MP effective
LENS 34-102mm equiv
SHUTTER SPEED 4-1/3000sec
ISO Auto
EXPOSURE MODES P, Sc, Mov, ±2EV
FLASH GN 3.3m
VIEWFINDER/MONITOR Yes/1.8inch
OTHER SD, Best Shot Selector, auto & manual focus, USB
POWER 2x AA
DIMENSIONS/WEIGHT 85 x 60 x 35mm/130g

4 Mega Pixels

PROS Simple to use, good price, punchy results
CONS Maybe too basic, difficulty resolving fine detail

WDC SCORE **81%**

SUMMARY ***Very basic and easy to use, produces punchy images***

TESTED May 2005

£135 Estimated Street Price (£230 RRP) — Fujifilm S3500

CCD 4.0MP
LENS 39-234mm f2.8-8.2
SHUTTER SPEED 2-1/1500sec
ISO Auto between 64 and 250
EXPOSURE MODES Auto, Prog AE, four scene modes
FLASH Built-in, GN 10
VIEWFINDER/MONITOR EVF/1.5in
OTHER xD, +/-0.6 EV, 320x240 video in 60sec clips, Pictbridge
POWER 4xAA alkaline supplied or rechargeable Ni-MH cells
DIMENSIONS/WEIGHT 99x77.3x69.3mm/285g

4 Mega Pixels

PROS Easy to use, good metering
CONS Barrelling, EVF and LCD freeze while focusing

WDC SCORE **79%**

SUMMARY ***An uncomplicated point and shooter with a long lens***

TESTED Awards 04

£140 Estimated Street Price (£200 RRP) — Fujifilm E500

CCD 4.1MP
LENS 28-91mm equiv, F2.9-5.5
SHUTTER SPEED 2-1/2000sec
ISO 80, 100, 200, 400
EXPOSURE MODES P,A,S,M, Auto, 4 Sc modes
FLASH 4.1m(W)-2.0m(T)
VIEWFINDER/MONITOR Optical/2.0in LCD
OTHER PictBridge, USB 1.1, xD-Picture cards
POWER 2xAA
DIMENSIONS/WEIGHT 101 x 60.5 x 32.6mm/225g

4 Mega Pixels

PROS Handling, features, price
CONS Slow connection, purple fringing

WDC SCORE **82%**

SUMMARY ***It's got a lot going for it but is let down by the image quality***

TESTED Feb 2005

£140 Estimated Street Price (£200 RRP) — KonicaMinolta Z10

CCD 3.2MP
LENS 36-290mm
SHUTTER SPEED 15-1/2000sec & B
ISO Auto, 64,100,200,400
EXPOSURE MODES P,A,S,M, Auto, Sc
FLASH 5.2m
VIEWFINDER/MONITOR Dual EVF/ 1.5in
OTHER SD card, Movie w/sound, 1.5fps
POWER 4xAA
DIMENSIONS/WEIGHT 109 x 82 x 94mm/400g

3 Mega Pixels

PROS Image quality, features
CONS Recording time, small LCD

WDC SCORE **84%**

SUMMARY ***The Z0-range is improving and is versatile but don't expect fine art prints***

TESTED Nov 2004

£140 Estimated Street Price (£250 RRP) — Olympus Mju-Mini

CCD 4MP
LENS 35-70mm
SHUTTER SPEED 4-1/1000sec
ISO 64, 100, 200, 400 (500 for candle scene mode)
EXPOSURE MODES P, Sc (13), Mov
FLASH GN 5.4m @wide/auto
VIEWFINDER/MONITOR None/1.8in
OTHER xD, unlimited video/sound, weatherproof, 6 colours
POWER Li-Ion
DIMENSIONS/WEIGHT 95x 55.5 x 27.5mm/115g

4 Mega Pixels

PROS Design, ease of use, colours
CONS Limited functions, limited zoom, handling

WDC SCORE **81%**

SUMMARY ***A reasonable snapper, it is cool and classy but limited for the enthusiast***

TESTED Special 04

£150 Estimated Street Price (£200 RRP) — Olympus 470

CCD 4.0 Million Effective Pixels
LENS 35 - 105mm f/3.1 – 5.2
SHUTTER SPEED 1/2 – 1/1000 sec
EXPOSURE MODES Auto, Prog AE, 8 Scene, Mov with sound
ISO 64, 250, 500 automatically selected
FLASH GN 11
VIEWFINDER/MONITOR None/ 1.8inch
OTHER xD (16MB card supplied), Digital ESP metering, USB
POWER LI-12B Li-ion rechargeable pack
DIMENSIONS/WEIGHT 108 x 51 x 27mm/159g

4 Mega Pixels

PROS Design, easy to use, great colour capture
CONS No optical viewfinder, overprocessing

WDC SCORE **82%**

SUMMARY ***Good price for the spec, but lacks finesse***

TESTED Apr 2005

£160 Estimated Street Price (£350 RRP) — Kodak Dx7630

CCD 6.1MP eff
LENS 39-117mm equiv.
SHUTTER SPEED 64-1/1000sec
ISO 100, 200, 400, 800
EXPOSURE MODES: P, A, S, M, Scenes
FLASH GN 4.2m @auto/wide
VIEWFINDER/MONITOR Optical/2.2in
OTHER QuickTime movie mode
POWER 3.7V Li-ion battery
DIMENSIONS/WEIGHT 103 x 69.2 x 40.2mm/ /219g

6 Mega Pixels

PROS Quick accurate AF, build, ergonomic design
CONS Only 3x zoom, tiny viewfinder, zoom control

WDC SCORE **85%**

SUMMARY ***Compact, easy to use and produces very good images***

TESTED Aug 2004

£160 Estimated Street Price (£350 RRP) — Casio Exilim S100

CCD 3.2MP eff
LENS 36-102mm (equiv) f/4-6.6
SHUTTER SPEED 4-1/2000sec
ISO 50,100,200,400
EXPOSURE MODES: Program AE, Mov, Sc
FLASH 0.4-2.5m
VIEWFINDER/MONITOR None/ 2" LCD
OTHER 9MB Int, SD, clock/alarm, ceramic lens
POWER Li-ion
DIMENSIONS/WEIGHT 88 x 57 x 16.7 mm/113g

3 Mega Pixels

PROS Sharp images, LCD features, size, speed
CONS Fiddly handling, SD card issues, camera shake

WDC SCORE **82%**

SUMMARY ***Innovative ceramic lens and loads of features in a tiny and fiddly body***

TESTED Jan 2005

£165 Estimated Street Price (£300 RRP) — Konica Minolta Dimage X50

CCD 5.1MP
LENS 37-105mm f/2.8-5 3
SHUTTER SPEED 4-1/1000sec
ISO Auto ISO 50-160, 50, 100, 200, 400
EXPOSURE MODES P, Auto, Sc (7), Mov
FLASH Built-in flash, GN7m
VIEWFINDER/MONITOR Optical /2.0inch
OTHER SD, Movie at 320x240 pixels 30fps or 15fps with sound
POWER Lith Ion 3.7V 660mAh rechargeable cell
DIMENSIONS/WEIGHT 83.5 x 62 x 23.5mm125g

5 Mega Pixels

PROS Design, excellent macro
CONS LCD screen a bit grainy

WDC SCORE **83%**

SUMMARY ***Easy to use, well designed and delivers good pictures***

TESTED Feb 2005

£170 Estimated Street Price (£239 RRP) — Canon A520

CCD 4.2MP total, 4.0MP effective
LENS 34-140mm (equiv) f2.6 – 5.5
SHUTTER SPEED 15-1/2000sec
ISO 50-400
EXPOSURE MODES M, A, S, P, 5 pic modes, 8 scene modes
FLASH Built in
VIEWFINDER/MONITOR Optical/1.8-inch LCD
OTHER SD
POWER 2x AA cells
DIMENSIONS/WEIGHT 91 x 64 x 38.5mm/180g

4 Mega Pixels

PROS Accomplished performer
CONS Could be quicker and quieter

WDC SCORE **86%**

SUMMARY ***Assured performace by a capable camera, producing fine images***

TESTED July 2005

£170 Estimated Street Price (£199 RRP) — KonicaMinolta Z20

CCD 5.2MP Total 5.0MP effective
LENS 36-290mm f/3.2-3.4
SHUTTER SPEED 15-1/2000sec
ISO 50-320
EXPOSURE MODES P, A,S,M + 5 Scene modes
FLASH Built-in
VIEWFINDER/MONITOR EVF/1.5in 130,000 pixels
OTHER SD slot
POWER 4xAA
DIMENSIONS/WEIGHT 109 x 82 x 94mm/300g

5 Mega Pixels

PROS Speed of handling
CONS Length of telephoto lens

WDC SCORE **85%**

SUMMARY ***A great camera, although the lens is less capable at telephoto position***

TESTED June 2005

£175 Estimated Street Price (£199 RRP) — HP R717

CCD 6.4MP total, 6.2MP effective
LENS 39-117mm equiv f2.8-4.9
SHUTTER SPEED 16 – 1/2000th sec
ISO Auto, 50, 100, 200, 320
EXPOSURE MODES: A, AP, 10 scene modes
FLASH Built in 5m (W) 2.8m (T)
VIEWFINDER/MONITOR Optical/1.8in
OTHER SD/MMC, 32Mb int, USB, 320x240pixel MPEG1 movies
POWER Li-ion battery
DIMENSIONS/WEIGHT 98.5 x 35.3 x60mm/180g

6 Mega Pixels

PROS Ease of use, Real Imaging Technology
CONS Limited macro mde, images lack punch

WDC SCORE **83%**

SUMMARY ***Easy to operate, but speed and picture quality are not perfect***

TESTED Aug 2005

£180 Estimated Street Price (£200 RRP) — Panasonic LZ1

CCD 4.2MP CCD, 4.0 MP effective
LENS 37-222mm
SHUTTER SPEED 8 – 1/2000sec
ISO A, 64, 100, 200, 400
EXPOSURE MODES Program, Scene modes, Mov
FLASH Built in
VIEWFINDER/MONITOR None/2in LCD
OTHER SD, Image stabilisation
POWER 2x AA (NiMH recommended)
DIMENSIONS/WEIGHT 101 x 64 x 33mm/224g

4 Mega Pixels

PROS Zoom range, image stabilisation, price
CONS Focus can miss sometimes, low ISO

WDC SCORE **88%**

SUMMARY ***Good specifications and features make this a great-value camera***

TESTED June 2005

£190 Estimated Street Price (£229 RRP) — KonicaMinolta X60

CCD 5.4MP total /5.0 MP effective
LENS 38-114mm (equiv) f/3.3 – 4.0
SHUTTER SPEED 4-1/1000sec
ISO A, 50, 100, 200, 400
EXPOSURE MODES A, P, 6 scene modes
FLASH Built in
VIEWFINDER/MONITOR None/2.5in LCD
OTHER 15Mb internal memory, SD, 3 filters
POWER Li-ion cell
DIMENSIONS/WEIGHT 83.5 x 56 x 22mm/115g

4 Mega Pixels

PROS Large LCD size, fast startup
CONS Limited features, image noise

WDC SCORE **83%**

SUMMARY ***Despite limited features, this is quick, easy to operate and capable***

TESTED Sept 2005

THE BUYERS' GUIDE

cameras up to £200

£190 Estimated Street Price (£199 RRP) — Acer CR8530

CCD 8.1MP effective
LENS 36-108mm f2.8-4.8
SHUTTER SPEED 1/2 – 1/500 sec
ISO Auto, 50, 100, 200
EXPOSURE MODES Auto, Program, A, S, M, 3 scene modes
FLASH 0.5m –2.7m range
VIEWFINDER/MONITOR Optical/2.5in
OTHER SD/MMC
POWER Li-ion
DIMENSIONS/WEIGHT 91 x 57 x 27mm /150g

8 Mega Pixels

PROS Price, wide range of features
CONS Menu hard to see, restricting features
SUMMARY ***Decent feature set but controls are fiddly and picture quality variable***

WDC SCORE **78%** TESTED Sept 2005

£190 Estimated Street Price (£329 RRP) — Olympus C-765

CCD 4.0MP eff
LENS 38-380mm equiv f2.8-3.7
SHUTTER SPEED 16-1/1000sec
ISO 64//100/200/400
EXPOSURE MODES: P,A,S,M, Auto, 4 Scene
FLASH 3.5m(W) - 4.5(T)
VIEWFINDER/MONITOR EVF/1.8in
OTHER xD, Pictbridge, USB 2.0 connection
POWER Li-ion rechargeable
DIMENSIONS/WEIGHT 104.5 x 60 x 69mm / 280g

4 Mega Pixels

PROS Manual options, viewfinder, build quality
CONS Image quality, handling, price
SUMMARY ***Some image quality issues aside, this is a useful camera***

WDC SCORE **82%** TESTED Dec 2004

£200 Estimated Street Price (£350 RRP) — Canon Ixus 40

CCD 4.0 MP effective
LENS 35 - 105mm f/2.8 – f/4.9
SHUTTER SPEED 15 – 1/1500th sec
ISO Auto, 50/100/200/400
EXPOSURE MODES: Auto, P, M, 7 Scene modes, +/-2EV
FLASH GN 11
VIEWFINDER/MONITOR Optical/2in
OTHER SD/MMC, 640x480 30fps video, USB, Pictbridge
POWER NB-4L Li-ion rechargeable battery pack
DIMENSIONS/WEIGHT 86 x 53 x 20.7mm/130g

4 Mega Pixels

PROS Great image quality, metering & AF, manual control
CONS Blurred viewfinder, weak memory card bay cover
SUMMARY ***Small, stylish and simple, yet capable of excellent results***

WDC SCORE **86%** TESTED Apr 2005

£190 Estimated Street Price (£199 RRP) — Fujifilm F440

CCD 4MP
LENS 38-380mm f2.8 – 5.5
SHUTTER SPEED 2-1/2000sec
ISO Auto, 80, 100, 200, 400
EXPOSURE MODES Auto, Program, 4 scene modes
FLASH Built in
VIEWFINDER/MONITOR Optical/2in
OTHER xD storage
POWER Li-ion NP-30 rechargeable
DIMENSIONS/WEIGHT 74.5 x 62.3 x 21.3mm/150g

4 Mega Pixels

PROS Compact, large LCD, quick focusing
CONS Limited features, noise at high ISO
SUMMARY ***Stylish, small and quick, producing good quality images***

WDC SCORE **85%** TESTED May 2005

£195 Estimated Street Price (£320 RRP) — Canon A95

CCD 5.0MP effective
LENS 38–114mmf2/8-4.9
SHUTTER SPEED 15-1/2000sec
ISO Auto, 50, 100, 200, 400
EXPOSURE MODES Auto, P,A,S,M, 6 subject, 8 scene modes
FLASH GN 11
VIEWFINDER/MONITOR OPT/1.8in
OTHER CF I&II, 2fps, up to 18-frame buffer, 640x480 video
POWER 4xAA alkaline supplied, or Ni-MH rechargeable batteries
DIMENSIONS/WEIGHT 101x64.6x38mm/235g

5 Mega Pixels

PROS Easy to use, excellent metering, full spec
CONS AiAF niggles, slow startup, lacks TIFF & RAW
SUMMARY ***A great little performer with a great little price tag***

WDC SCORE **86%** TESTED Special 04

£200 Estimated Street Price (£300 RRP) — Canon Ixus i5

CCD 5.4MP (total) 5.03MP (Effective)
LENS 39mm equiv f/2.8
SHUTTER SPEED 15-1/1500sec
ISO 50-400 plus auto
EXPOSURE MODES A, P plus 5 Scene modes
FLASH Built-in GN 5.6m on Auto ISO
VIEWFINDER/MONITOR No viewfinder/1.5in LCD
OTHER 640x480 10fps movie mode
POWER 2x AA
DIMENSIONS/WEIGHT 90 x 47 x 18.5mm/100g

5 Mega Pixels

PROS Design, Small size
CONS Fixed focal-length lens
SUMMARY ***A pocket-sized gem, though unfortunately lacking an optical zoom***

WDC SCORE **81%** TESTED May 2005

£190 Estimated Street Price (£250 RRP) — Olympus mju Mini S

CCD 5.4MP (total) 5MP (Effective)
LENS 35-70mm (equiv) f/3.5-4.9
SHUTTER SPEED 1/2-1/1000sec
ISO 64-400 plus auto
EXPOSURE MODES P, Sc, Movie
FLASH Built-in GN 5.4
VIEWFINDER/MONITOR No viewfinder/1.8in LCD
OTHER xD, Histogram, three colours
POWER Li-ion
DIMENSIONS/WEIGHT 95 x 55.5 x 275mm/115g

5 Mega Pixels

PROS Black finish very tactile
CONS Images better then expected but not perfect
SUMMARY ***Style over substance, adequate images with some decent features***

WDC SCORE **81%** TESTED July 2005

£200 Estimated Street Price (£280 RRP) — Olympus Mju 500

CCD 5MP effective
LENS 35-105mm f/3.1-5.6
SHUTTER SPEED 4-1/1000sec
ISO 64-640
EXPOSURE MODES P, Sc, Mov, ±2EV
FLASH GN 7.8
VIEWFINDER/MONITOR None/ 2.5in TFT
OTHER xD, PictBridge, 1.5fps for 4 frames
POWER Li-Ion
DIMENSIONS/WEIGHT 99 x 55.5 x 31mm/165g

5 Mega Pixels

PROS Build quality, image colour & sharpness, LCD
CONS Some image noise, limited control
SUMMARY ***Weatherproof and simple to use, with a great LCD screen***

WDC SCORE **87%** TESTED Apr 2005

£200 Estimated Street Price (£249 RRP) — Pentax WP

CCD 5MP (Effective)
LENS f3.3-4.0 / 38-114mm
SHUTTER SPEED 4 – 1/2000 sec
ISO Auto, 100-400
EXPOSURE MODES Program, 18 Sc, Mov
FLASH 0.13m - 2.5m range
VIEWFINDER/MONITOR No viewfinder/2-inch TFT colour
OTHER SD, Underwater to 5m
POWER Lithium-ion
DIMENSIONS/WEIGHT 102 x 51 x 22mm/120g

5 Mega Pixels

PROS Relatively simple, good underwater camera
CONS No underwater white balance, reliance on scenes
SUMMARY ***There are better cameras, but this is quirky and fun, a holiday camera***

WDC SCORE **83%** TESTED Sept 2005

£190 Estimated Street Price (£300 RRP) — Fujifilm S5500

CCD 4MP
LENS 37-370mm
SHUTTER SPEED 15-1/2000sec
ISO Auto, 64-400
EXPOSURE MODES P, A, S, M, Auto, Sc
FLASH GN14
VIEWFINDER/MONITOR EVF/1.5in LCD
OTHER xD storage, RAW mode
POWER 4xAA
DIMENSIONS/WEIGHT 113x81x79mm/480g

4 Mega Pixels

PROS Great spec, sensible controls, RAW mode
CONS Close focus distance, weird colour artefacts
SUMMARY ***Useful features but slow ISO speed and long lens needs bright light***

WDC SCORE **81%** TESTED Jan 05

£200 Estimated Street Price (£350 RRP) — Konica Minolta Z3

CCD 4.0MP effective
LENS 35-420mm
SHUTTER SPEED 30-1/1000sec
ISO Auto, 50, 100, 200, 400
EXPOSURE MODES Auto, M,A,S,P, 5 Scene
FLASH GN 11
VIEWFINDER/MONITOR Electronic TTL-viewfinder (EVF)
OTHER SD card, Anti-Shake system
POWER 4xAA
DIMENSIONS/WEIGHT 108x5x80x83.5mm/335g

4 Mega Pixels

PROS Excellent zoom lens, Anti-Shake, Good exposures
CONS Resolution for its price
SUMMARY ***Careful use should deliver good images for most purposes***

WDC SCORE **84%** TESTED Dec 04

£200 Estimated Street Price (£279 RRP) — Sony W5

CCD 5.25MP CCD, 5.1 MP effective
LENS f2.8-5.2 38-114 mm
SHUTTER SPEED 30 – 1/1000sec
ISO Auto, 100, 200, 400
EXPOSURE MODES Program, Manual, 7 scene modes
FLASH Built in 0.2-4.5 (W) 0.3-2.5 (T)
VIEWFINDER/MONITOR Optical/2.5-inch
OTHER MS, MS Pro, 32Mb int
POWER Nikon EN-EL8
DIMENSIONS/WEIGHT 91 x 60 x 37.1mm/253g

5 Mega Pixels

PROS LCD screen, fast operation, sturdy build
CONS No separate playback button, less effective in low light
SUMMARY ***Sturdy, quick and produces good images – a family compact***

WDC SCORE **86%** TESTED Aug 2005

£190 Estimated Street Price (£349 RRP) — Nikon 4800

CCD 4.0MP eff
LENS 36-300mm f/2.7 – f/4.4
SHUTTER SPEED 4 – 1/2000th sec
ISO Auto, 50, 100, 200, 400
EXPOSURE MODES Auto, Program & 11 scene modes
FLASH GN 12
VIEWFINDER/MONITOR EVF / 1.8in
OTHER SD/MMC, 13.5MB internal, USB2.0 (Full Speed),640x480 video
POWER EN-EL1 Li-ion battery pack (supplied)
DIMENSIONS/WEIGHT 106 x 66 x 54mm/255g

4 Mega Pixels

PROS Handling, excellent optics, metering and AF
CONS Plastic build, noisy images
SUMMARY ***Impressively specified in a a small body, but images are noisy***

WDC SCORE **80%** TESTED Feb 2005

£200 Estimated Street Price (£230 RRP) — Ricoh R1V

CCD 5.2MP (total) 5.1MP (Effective)
LENS 28-135mm equiv f/3.3-4.8
SHUTTER SPEED 8-1/2000sec
ISO 64-800 plus auto
EXPOSURE MODES: P, plus 6 Scene modes
FLASH Built-in GN 9m at ISO100
VIEWFINDER/MONITOR 1.8in LCD
OTHER 1cm macro focusing, text recording mode
POWER 2xAA/Lilon cell
DIMENSIONS/WEIGHT 100 x 55 x 25mm/150g

5 Mega Pixels

PROS Build, focal length range, excellent macro
CONS Images a bit grainy
SUMMARY ***Well built, with decent feature set, image grain is disappointing***

WDC SCORE **83%** TESTED May 2005

£200 Estimated Street Price (£240 RRP) — Panasonic LZ2

CCD 5.36MP total, 5MP effective
LENS 37-222mm (equiv) f/2.8-4.5
SHUTTER SPEED 8-1/2000sec
ISO 64-400
EXPOSURE MODES Program, Sc, Mov
FLASH Built in
VIEWFINDER/MONITOR 2" LCD
OTHER SD, Image Stabilisation
POWER 2x AA
DIMENSIONS/WEIGHT 101 x 64 x 33mm/224g

5 Mega Pixels

PROS Lens, price, image stabilisation
CONS Some image noise, bulkier than most compacts
SUMMARY ***Fantastic lens and good colour at very reasonable price***

WDC SCORE **88%** TESTED July 2005

£205 Estimated Street Price (£380 RRP) — Fujifilm E550

CCD 6.3MP
LENS 32.5 – 130 mm
SHUTTER SPEED 3sec-1/2000sec
ISO 80/100/200/400/800
EXPOSURE MODES P,A,S,M,Sc, Mov, ±2EV
FLASH 4.5m (W) 2.2m (T)
VIEWFINDER/MONITOR OPT/2in
OTHER xD, ISO 800 @3MP Resolution
POWER 2xAA
DIMENSIONS/WEIGHT 105x 63 x 34.4 mm/200g

6 Mega Pixels

PROS 6MP sensor, LCD, handling
CONS 12MP output quality, noise above ISO200

WDC SCORE 85%

SUMMARY **A rather nice camera with plenty of options for the enthusiast**

TESTED Jan 2005

£220 Estimated Street Price (£260 RRP) — Kodak Z740

CCD 5.36MP CCD, 5.0 MP effective
LENS 38-380mm f2.8-3.7
SHUTTER SPEED 8-1/1000sec
ISO Auto plus ISO 80,100, 200, 400, 800
EXPOSURE MODES P,A,S,M, 16 Scene, Mov
FLASH Built in GN 10.6
VIEWFINDER/MONITOR Electronic/1.8in
OTHER SD/MMC, 35Mb internal storage, USB and 640 x 480 movie
POWER 2x AA, 1x CR-V3 or EasyShare dock with Ni-MH battery pack
DIMENSIONS/WEIGHT 97.6 x 77.5 x 72mm/287g

5 Mega Pixels

PROS 10x optical zoom, comfortable to hold
CONS Fringing, no manual white balance, fiddly joystick

WDC SCORE 82%

SUMMARY **Easy to use with plenty of features, some image quality issues**

TESTED May 2005

£220 Estimated Street Price (£400 RRP) — Olympus C-770

CCD 4MP
LENS 38-380mm
SHUTTER SPEED 15-1/1000sec
ISO Auto, 64,100,200,400
EXPOSURE MODES P,A,S,M,Sc(9), Mov, ±2EV
FLASH Auto, redeye reduction, forced, suppressed, slow sync
VIEWFINDER/MONITOR EVF/1.8in LCD
OTHER xD, MPEG4 Panorama assist, flash compensation
POWER Li-Ion, AC Adaptor included
DIMENSIONS/WEIGHT 104.5 x 60 x 68.5mm/300g

4 Mega Pixels

PROS Compact, well made, MPEG4, good LCD
CONS Heavy, similar to other models in the range

WDC SCORE 85%

SUMMARY **At the moment the C770 stands alone in its niche and stands proud**

TESTED Sep 2004

£220 Estimated Street Price (£280RRP) — Nikon S1

CCD 5.36MP total, 5.0MP effective
LENS 35-105mm f/3.0 – f/5.4
SHUTTER SPEED 1 – 1/350 sec
ISO Auto, 50, 100, 200, 400
EXPOSURE MODES Program, 13 scene, 4 scene assist
FLASH Built in
VIEWFINDER/MONITOR No viewfinder / 2.5in
OTHER SD, 12MB internal
POWER Nikon EN-EL8
DIMENSIONS/WEIGHT 89.9 x 57.5 x 19.mm/118g

5 Mega Pixels

PROS Large LCD screen, easy to operate, D-lighting
CONS Often tricky macro focusing, eats battery power

WDC SCORE 84%

SUMMARY **Stylish and easy to use with limited features**

TESTED July 2005

£220 Estimated Street Price (£279 RRP) — Casio EX-Z57

CCD 5MP eff
LENS 35-105mm, f2.6-4.8
SHUTTER SPEED 4sec-1/2000sec
ISO Auto, 50,100,200,400
EXPOSURE MODES P, BestShot modes
FLASH Built in 0.2-2.6m
VIEWFINDER/MONITOR None/2.7inch
OTHER MS, MS Pro
POWER Superlife Rechargeable Li-Ion
DIMENSIONS/WEIGHT 87 x 58 x 22.5mm/130g

5 Mega Pixels

PROS Compact size, BestShot modes, battery life
CONS No AV connection, lack of space around back

WDC SCORE 83%

SUMMARY **Not the easiest to operate, but a decent camera with satisfactory results**

TESTED Aug 2005

£225 Estimated Street Price (£300 RRP) — Samsung V700

CCD 7.1MP eff
LENS 38-114mm equiv
SHUTTER SPEED 15sec-1/2000sec
ISO Auto, 50,100,200,400
EXPOSURE MODES P,A,S,M, Sc,Mov, ±2EV
FLASH Built in
VIEWFINDER/MONITOR Yes/1.8inch
OTHER SD, Composite mode, PictBridge, Histogram USB2
POWER Li-Ion
DIMENSIONS/WEIGHT 56.5x105x29.5mm/150g

7 Mega Pixels

PROS Good noise control, plenty of features
CONS Difficult to use features effectively, artefacts

WDC SCORE 80%

SUMMARY **Packed with features, tricky to operate and images are over processed**

TESTED May 2005

£230 Estimated Street Price (£299RRP) — Sony P200

CCD 7.2MP effective
LENS 38-114mm f/2.8 – f/5.2
SHUTTER SPEED 30 – 1/1000th sec
ISO Auto, 100, 200, 400
EXPOSURE MODES Program & 9 scene modes
FLASH Built in
VIEWFINDER/MONITOR Optical / 2.0-inch TFT
OTHER MS, MS Pro
POWER InfoLITHIUM NP-FR1
DIMENSIONS/WEIGHT 104 x 51.5 x 27.9mm/180g

7 Mega Pixels

PROS Fast, good-quality images, build
CONS LCD visibility in bright sunlight

WDC SCORE 84%

SUMMARY **Impressively specified in a small body, but images are noisy**

TESTED July 2005

£230 Estimated Street Price (£480 RRP) — Canon S1-IS

CCD 3.2MP (eff)
LENS 38–380mm (equiv)
SHUTTER SPEED 15-1/2000sec
ISO 50-400
EXPOSURE MODES P,A, S, M, auto, six scene
FLASH GN 12m
VIEWFINDER/MONITOR EVF/1.5in TFT
OTHER CF storage, IS, Flexizone Focus
POWER 4xAA
DIMENSIONS/WEIGHT 110x78x66mm/370g

3 Mega Pixels

PROS Image stabiliser is good for 10x zoom. Good AF
CONS Expensive for 3MP model, resolution

WDC SCORE 81%

SUMMARY **The camera for those for whom resolution is not the be all and end all**

TESTED July 2004

£240 Estimated Street Price (£329 RRP) — Sony W7

CCD 7.4MP total, 7.0MP effective
LENS 38-114mm f2.8-5.2
SHUTTER SPEED 15-1/2000sec
ISO Auto, 100-400
EXPOSURE MODES Auto, M, 6 scene modes
FLASH Built-in
VIEWFINDER/MONITOR Opt/2.5inch
OTHER MS, slot, 32Mb internal
POWER 2x AA
DIMENSIONS/WEIGHT 91 x 60 x 37.1mm/ 253g

5 Mega Pixels

PROS Great performer all round
CONS High-resolution images

WDC SCORE 86%

SUMMARY **Good specs and handling, great images, use a tripod in low light levels**

TESTED July 2005

£240 Estimated Street Price (£350 RRP) — Pentax Optio X

CCD 5MP
LENS 35-107mm f2.6-4.8
SHUTTER SPEED 4-1/2000sec
ISO not stated
EXPOSURE MODES Auto, P, 15 Sc
FLASH GN 9.5
VIEWFINDER/MONITOR None/2in TFT
OTHER SD/MMC, video w/sound to limit of storage, Pictbridge, ±2EV
POWER D-L18 Li-Ion rechargeable battery pack(incl), charged via dock
DIMENSIONS/WEIGHT 116x46.5x75mm/145g

5 Mega Pixels

PROS Great metering, good spec and design
CONS Barrelling, Fiddly handling, overprocessed pics

WDC SCORE 82%

SUMMARY **Overzealous image processing mars an otherwise accomplished camera**

TESTED Jan 2005

£240 Estimated Street Price (£400 RRP) — Sony T3

CCD 5.1MP effective
LENS 38-114mm f/3.5-4.4
SHUTTER SPEED 1-1/1000sec
ISO Auto plus ISO 100, 200 and 400
EXPOSURE MODES Auto, program, Sc (8)
FLASH Built-in GN 7.5m
VIEWFINDER/MONITOR 2.5in LCD
OTHER MS Duo
POWER Lilon 3.6V 680mAh rechargeable
DIMENSIONS/WEIGHT 91x60x18mm/171g

5 Mega Pixels

PROS Design, good user control, good macro, LCD
CONS Exposure modes rather limiting

WDC SCORE 86%

SUMMARY **Combines good looks with excellent performance**

TESTED Feb 2005

£240 Estimated Street Price (£299 RRP) — Fujifilm Finepix F10

CCD 6.63 Total 6.3MP effective
LENS 36-108mm f/2.8-5
SHUTTER SPEED 3-1/2000sec
ISO 80-1600
EXPOSURE MODES Program, Scene, Mov
FLASH Built-in 4m(W)-6.5m(T)
VIEWFINDER/MONITOR None/2.5in LCD
OTHER xD storage
POWER Li-Ion
DIMENSIONS/WEIGHT 92 x 58 x 27.3mm/200g

6 Mega Pixels

PROS Big LCD, handling, low-light performance
CONS Little manual control, no RAW

WDC SCORE 87%

SUMMARY **Stylish, responsive, producing excellent images. Good ISO performance**

TESTED June 2005

£250 Estimated Street Price (£350 RRP) — Pentax Optio SV

CCD 5MP
LENS 36-180mm equiv
SHUTTER SPEED 4-1/2000sec
ISO 50/100/200/400
EXPOSURE MODES P,A,S,M, 12 Scene, Mov, ±2EV
FLASH 0.12m - 4.2m at wide
VIEWFINDER/MONITOR Optical/1.8in TFT
OTHER SD card, Histogram, Interval shooting, Timelapse video
POWER Li-Ion
DIMENSIONS/WEIGHT 91.5 x 56 x 28mm/150g

5 Mega Pixels

PROS Nice design, lens length, plenty of features
CONS Image blurring at infinity, noise at ISO 400

WDC SCORE 84%

SUMMARY **Competent and trim, the SV looks good, but has some problems**

TESTED Mar 2005

£250 Estimated Street Price (£300 RRP) — Panasonic FX8

CCD 5MP
LENS 35-105mm f/2.8-5.6
SHUTTER SPEED 8-1/2000sec
ISO 80-400
EXPOSURE MODES Program AE, 12 Sc, Mov
FLASH 0.3-4.0m (Wide/ISO Auto), 0.3-2.2m (Tele/ISO Auto)
VIEWFINDER/MONITOR None/2.5in LCD
OTHER SD, Image Stabilisation (OIS), continuous shooting
POWER Li-Ion
DIMENSIONS/WEIGHT 94.1 x 50.5 x 24.2mm/155g

5 Mega Pixels

PROS Mega OIS, LCD, video, simplicity
CONS Cramped thumb space, average image quality

WDC SCORE 85%

SUMMARY **Competent lifestyle camera with great movie mode and stabilisation**

TESTED Sept 2005

£250 Estimated Street Price (£300 RRP) — Ricoh Caplio GX8

CCD 8.5MP Total, 8.2MP effective
LENS 28-85mm (equivalent) f/2.5-4.34
SHUTTER SPEED 30-1/2000sec
ISO 60-1600
EXPOSURE MODES Auto, A, M, six Scene
FLASH Built-in
VIEWFINDER/MONITOR OPT/1.8in
OTHER SD slot
POWER 2xAA
DIMENSIONS/WEIGHT 113.6 x 58 x 29mm/205g

8 Mega Pixels

PROS Lens, build, features
CONS Power consumption, LCD colour cast

WDC SCORE 81%

SUMMARY **Good lens, features and build. But it is power hungry and the LCD is poor**

TESTED Aug 2005

THE BUYERS' GUIDE

cameras £300 - £400

£260 Estimated Street Price (£320 RRP) — Nikon S2

CCD 5.1MP effective
LENS 35-105mm equivalent) f/3-5.4
SHUTTER SPEED 8-1/2000sec
ISO 50-400
EXPOSURE MODES Auto, 15 Sc, Mov
FLASH 0.3-2.5m (Wide/ISO Auto), 0.3-1.4m(Tele/ISO Auto)
VIEWFINDER/MONITOR None/ 2.5in
OTHER SD, all weather, USB camera dock
POWER Li-ion
DIMENSIONS/WEIGHT 91.9 x 59 x 22mm/140g

5 Mega Pixels

PROS Good front design, good scene modes, all-weather
CONS Cramped back, corner sharpness, lens distortion

WDC SCORE 80%

SUMMARY **Looks great, but let down by image quality and handling issues**

TESTED Sept 2005

£260 Estimated Street Price (£320 RRP) — Nikon Coolpix 7900

CCD 7.41MP CCD, 7.1MP effective
LENS 38-114mm f2.8-4.9
SHUTTER SPEED 4-1/2000sec
ISO A, 50, 100, 200, 400
EXPOSURE MODES Program, scene modes, ±2 EV
FLASH Built in
VIEWFINDER/MONITOR Optical / 2in
OTHER SD, JPEG, 3 metering modes, D-Light, red-eye removal
POWER Li-ion
DIMENSIONS/WEIGHT 88 x 60 x 36.5mm/150g

7 Mega Pixels

PROS Small, high resolution, good image noise control
CONS Image detail and sharpening, AF

WDC SCORE 83%

SUMMARY **Contains innovative features, but produces overprocessed images**

TESTED June 2005

£260 Estimated Street Price (£480 RRP) — Fujifilm F810

CCD 6.3MP effective, 12.3MP output
LENS 35.5-142mm (equiv) f/2.8-5.6
SHUTTER SPEED 3-1/2000sec
ISO Automatic, ISO 80, 100, 200, 400, 800
EXPOSURE MODES P,A, S, M, four Scene
FLASH GN 11m
VIEWFINDER/MONITOR Optical /2.1inch
OTHER xD card, widescreen 16:9 format images, RAW mode
POWER Lilon rechargeable cell
DIMENSIONS/WEIGHT 109.5x54x29mm/200g

6 Mega Pixels

PROS Good 6MP image quality, lovely build quality
CONS 12MP output, highlights blowing out

WDC SCORE 85%

SUMMARY **Use at the 6MP setting for the best results and you won't be disappointed**

TESTED Dec 2004

£265 Estimated Street Price (£330 RRP) — Casio EX-Z750

CCD 7.4MP total, 7.2MP effective
LENS 38-114mm f2.8-5.1
SHUTTER SPEED 60-1/6000sec
ISO 50-400
EXPOSURE MODES Snapshot, M, A, S, 30 scene
FLASH Built-in GN8
VIEWFINDER/MONITOR OPT/2.5in
OTHER SD
POWER Li-Ion cell
DIMENSIONS/WEIGHT 89 x 58.5 x 22.5mm/ 127g

7 Mega Pixels

PROS Movie modes, scene modes
CONS LCD, Colour accuracy, images no better than 5MP

WDC SCORE 82%

SUMMARY **Good movie and scene modes, extra pixels contribute little**

TESTED July 2005

£260 Estimated Street Price (£449 RRP) — Canon S60

CCD 5MP
LENS 28-100mm f2.8-5.3
SHUTTER SPEED 15-1/2000sec
ISO Auto, 50,100,200,400
EXPOSURE MODES Auto, P,A,S,M, 6 Sc
FLASH GN 12
VIEWFINDER/MONITOR OPT/1.8in
OTHER CF I&II, 2fps, 8-frame buffer, 640x480 video
POWER NB-2LH Li-Ion battery pack
DIMENSIONS/WEIGHT 114 x 56.5 x 38.8mm/ 230g

5 Mega Pixels

PROS Handling, excellent wide zoom optics & metering
CONS AiAF niggles, some noise in Superfine mode

WDC SCORE 84%

SUMMARY **Sophisticated camera, chunkier than most, with a usefully wide lens**

TESTED Nov 2004

£270 Estimated Street Price (£380 RRP) — Kyocera M410R

CCD 4.1MP eff
LENS 37–370mm f2.8-8
SHUTTER SPEED 8-1/2000sec
ISO Auto,100,200,400,800
EXPOSURE MODES Auto, P, A, S, 4 Scene
FLASH GN 9m
VIEWFINDER/MONITOR EVF / 1.5in
OTHER SD, 3fps continuous shooting
POWER 4xAA
DIMENSIONS/WEIGHT 107 x 73 x 40.5mm/295g

4 Mega Pixels

PROS Continuous shooting, 10x zoom
CONS Slightly blocky images at times

WDC SCORE 85%

SUMMARY **A lot of innovations and it does what it does very well**

TESTED Sep 2004

£270 Estimated Street Price (£350 RRP) — Konica Minolta Z5

CCD 5.2MP total, 5MP effective
LENS 35-420mm f2.8-4.5
SHUTTER SPEED 4-1/1000sec
ISO Auto, 50,100,200,320
EXPOSURE MODES P, A, M, S, 5 scene
FLASH Built in GN 8
VIEWFINDER/MONITOR Electronic viewfinder/2.0inch LCD
OTHER SD, MMC, USB 2.0, 640 x 480 movie
POWER 4x AA cells
DIMENSIONS/WEIGHT 108.5 x 80 x 84mm/ 340g

5 Mega Pixels

PROS LCD size, 12x opt zoom, anti-shake
CONS Noise at higher ISOs, LCD in bright sunlight

WDC SCORE 85%

SUMMARY **Sophisticated camera, chunkier than most, with a usefully wide lens**

TESTED July 2005

£275 Estimated Street Price (£400RRP) — Canon Ixus 700

CCD 7.1MP effective
LENS 37-114mm f/2.8-4.9
SHUTTER SPEED 15-1/2000sec
ISO Auto plus ISO 80,100, 200, 400
EXPOSURE MODES Auto, Prog, scene, movie
FLASH 50cm-5m(W)/ 3m (T) at ISO Auto
VIEWFINDER/MONITOR Opt/2.0-inch
OTHER SD, histogram, PictBridge
POWER Lithium Ion
DIMENSIONS/WEIGHT 89.5 x 57 x 26.5mm /170g

7 Mega Pixels

PROS Design, good image quality, quick
CONS Manual controls are limited

WDC SCORE 87%

SUMMARY **One of the better 7MP models; excellent images with easy operation**

TESTED July 2005

£280 Estimated Street Price (£349 RRP) — Sony T7

CCD 5.1MP effective
LENS 38-114mm f3.5-4.4
SHUTTER SPEED 1/8-1/1000sec
ISO 64-400
EXPOSURE MODES Auto, Scene modes, Mov
FLASH Built in 0.1-2.6, Tele: 0.5-2.1
VIEWFINDER/MONITOR Opt/2.5-inch
OTHER Memory Stick Duo, MPEG 1, Pict Bridge, USB 2.0
POWER Info Lithium
DIMENSIONS/WEIGHT 91.7 x 60.2 x 14.7mm/114g

5 Mega Pixels

PROS Good image quality, good looks
CONS Poor documentation, small and fiddly

WDC SCORE 80%

SUMMARY **Competent performer, but fiddly to operate and needs a decent manual**

TESTED Aug 2005

£290 Estimated Street Price (£350 RRP) — Panasonic FZ5

CCD 5.0MP effective
LENS 36-432mm f/2.8-3.3
SHUTTER SPEED 8-1/1000sec
ISO Auto plus ISO 80,100, 200, 400
EXPOSURE MODES P,SA,S,M, nine Scene & macro, Mov
FLASH Built-in flash, GN12.6m
VIEWFINDER/MONITOR EVF, 1.8in
OTHER SD/MMC, movie with sound at 320x240 pixels, 30 10 15fps
POWER 8.4V 680mAh Lithium Ion rechargeable cell
DIMENSIONS/WEIGHT 108x68.4x84.8mm /290g

5 Mega Pixels

PROS Great zoom range, excellent lens
CONS Noise in low light

WDC SCORE 85%

SUMMARY **One of the best megazoom cameras around, producing good results**

TESTED May 2005

£290 Estimated Street Price (£450 RRP) — Canon S70

CCD 7.4MP total (7.1MP effective)
LENS 28-100mm f/2.8-5.3
SHUTTER SPEED 15-1/2000sec
ISO Auto plus ISO 50,100, 200, 400
EXPOSURE MODES P, A, S, M, 6 scene modes, Mov
FLASH Built-in flash, GN 11.8m
VIEWFINDER/MONITOR Optical, 1.8in LCD
OTHER CF I or II, Movie recording, Pictbridge
POWER 7.4V 750mAh Lithium Ion rechargeable cell
DIMENSIONS/WEIGHT 114 x 56.5 x 38.8mm/230g

7 Mega Pixels

PROS True wideangle lens, close focusing quality
CONS Exposures can be a little dark

WDC SCORE 86%

SUMMARY **Some minor niggles, but this fully-featured camera is impressive**

TESTED May 2005

£300 Estimated Street Price (£399 RRP) — Olympus C70

CCD 7.1MP
LENS 38-190mm equiv, (5x zoom) F2.8-4.8
SHUTTER SPEED 15-1/2000se
ISO 80, 100, 200, 400
EXPOSURE MODES P, A, S, M, 5 scene modes
FLASH 3.8m(W)-2.2m(T)
VIEWFINDER/MONITOR Optical/2.0" LCD
OTHER PictBridge, USB 1.1, xD-Picture cards
POWER LI-12B 3.7V Lithium rechargeable battery
DIMENSIONS/WEIGHT 102 x 59 x 42.4mm/220g

7 Mega Pixels

PROS Build quality, design, image quality
CONS Lousy zoom control, over-complicated menu

WDC SCORE 89%

SUMMARY **A well-built camera with some great features but has flaws**

TESTED Apr 2005

£320 Estimated Street Price (£700 RRP) — Fujifilm S7000

CCD 6.3MP (12MP Output)
LENS 35–210mm
SHUTTER SPEED 15-1/2000sec
ISO 160,200,400,800
EXPOSURE MODES P, SP, AP, M, auto, Sc, Mov
FLASH GN 3m@auto/wide
VIEWFINDER/MONITOR EVF/1.8in
OTHER Cable release socket, A/V out, xD,CF
POWER Rechargeable AA NiMH inc
DIMENSIONS/WEIGHT 121x97x82mm/590g

6 Mega Pixels

PROS High resolution, build quality, RAW files
CONS Macro button position, no PC socket

WDC SCORE 88%

SUMMARY **The additional resolution is a great boon. Great handling and control**

TESTED Awards 03

£330 Estimated Street Price (£339 RRP) — Casio Exilim Pro EX-P505

CCD 5.25MP CCD, 5.0 MP effective
LENS 38-190mm f3.3-3.6
SHUTTER SPEED 60 – 1/2000sec
ISO A, 50, 100, 200, 400
EXPOSURE MODES P, A, S, Auto, 22 Scene modes
FLASH Built-in
VIEWFINDER/MONITOR No viewfinder /2in flip and twist LCD
OTHER SD, MMC, 7.5Mb internal memory
POWER SUPERLIFE lithium-ion cell
DIMENSIONS/WEIGHT 98.5 x 55.5 x 73.5mm/ 215g

5 Mega Pixels

PROS Fast focus & start-up, compact size, 5x zoom
CONS Cramped controls, poor build, excessive noise

WDC SCORE 80%

SUMMARY **Great on paper, but the build and high incidence of noise disappoint**

TESTED June 2005

£330 Estimated Street Price (£400 RRP) — Sony H1

CCD 5.1 MP effective
LENS 36-432mm f2.8-3.7
SHUTTER SPEED 30-1/2000sec
ISO Auto, 64, 100, 200, 400
EXPOSURE MODES Auto, P, A, S, M, 7 scene modes
FLASH 0.3m – 6.8m (W) 0.9 - 5.2m (T)
VIEWFINDER/MONITOR Electronic/ 2.5-inch
OTHER 640 x 480 movie, 2cm macro, MS, MSPro, 32Mb internal
POWER 2x AA cells
DIMENSIONS/WEIGHT 108 x 81.4 x 91.2mm/ 590.8g

5 Mega Pixels

PROS 12x optical zoom, feature set, build quality
CONS Lacks some pro features such as RAW

WDC SCORE 85%

SUMMARY **Zoom and features ensure there is plenty for the enthusiast**

TESTED Sept 2005

£340 Estimated Street Price (£1000 RRP) — Pentax 750Z

CCD 7.1MP eff
LENS 37.5-187.5mm
SHUTTER SPEED 15-1/1000th
ISO 80-400
EXPOSURE MODES P, A, S, M, 12 picture modes
FLASH Range 0.2m-3.5m
VIEWFINDER/MONITOR Optical/1.8in
OTHER SD/MMC, PictBridge
POWER Rechargeable Li-Ion
DIMENSIONS/WEIGHT 100 x 61.5 x 42mm, 210g

7 Mega Pixels

PROS Handling, features, image quality, battery life
CONS Slow start-up and write time, no RAW

WDC SCORE 89%

SUMMARY **One of the best of the new breed, producing great photos**

TESTED Special 04

£350 Estimated Street Price (£469 RRP) — Canon S2 IS

CCD 5.0MP effective
LENS 38-432mm f/2.8-3.1
SHUTTER SPEED 15-1/3200sec
ISO 50-400
EXPOSURE MODES P, A, S, M, auto, plus 6 scene modes
FLASH Built-in pop-up
VIEWFINDER/MONITOR EVF / 1.8inch
OTHER SD, Flexizone focus, Image Stabilisation
POWER 4xAA
DIMENSIONS/WEIGHT 113 x 78 x 75.5mm/405g

5 Mega Pixels

PROS Good AF, Image stabiliser ideal for 12x zoom
CONS Bit bulky, bit pricey, only saves to JPEG

WDC SCORE 81%

SUMMARY **Fast, good metering, focusing and stabilisation. Often unusual fringing**

TESTED Aug 2005

£360 Estimated Street Price (£500 RRP) — Casio P700

CCD 7.1MP eff
LENS 33-132mm
SHUTTER SPEED 60-1/200 & B
ISO Auto, 80-640
EXPOSURE MODES P, A, S, M, BestShot, Mov
FLASH GN 3.6m W 2.5mT
VIEWFINDER/MONITOR Optical/2in TFT
OTHER SD, 9MB internal, calendar, album, world clock, alarm
POWER Li-Ion
DIMENSIONS/WEIGHT 98 x 68 x 45mm/225g

7 Mega Pixels

PROS Features, handling, design
CONS Vignetting, SD compatibility, slight noise problems

WDC SCORE 88%

SUMMARY **A fun camera, bursting with feeatures that delivers the goods**

TESTED Jan 2005

£360 Estimated Street Price (£499 RRP) — Olympus Camedia C-7070

CCD 7.4MP Total 7.1MP effective
LENS 27-110mm equivalent) f/2.4-4.8
SHUTTER SPEED 15-1/4000sec
ISO Auto, plus 50-400
EXPOSURE MODES P, A, S, M + 7 Scene
FLASH Built in/Hotshoe
VIEWFINDER/MONITOR Optical/ 1.8in LCD
OTHER xD and CF slots
POWER Li-Ion
DIMENSIONS/WEIGHT 116 x 87 x 65.5mm/433g

7 Mega Pixels

PROS Image quality
CONS Function finding

WDC SCORE 86%

SUMMARY **Very capable, good image quality and lens performance**

TESTED June 2005

£370 Estimated Street Price (£650 RRP) — Panasonic FZ20

CCD 5MP effective
LENS 36-432mm
SHUTTER SPEED 8-1/2000sec
ISO 80-400
EXPOSURE MODES P, A, S, M, Sc, ±2EV
FLASH Built in/Hotshoe
VIEWFINDER/MONITOR EVF / 2.0" LCD
OTHER SD, Mega OIS, live histogram, 3fps over seven frames
POWER Li-Ion
DIMENSIONS/WEIGHT 127.6x87.2x106.2mm/520g

5 Mega Pixels

PROS Image quality, lens, handling
CONS No RAW format, fiddly aperture/shutter controls

WDC SCORE 89%

SUMMARY **Panasonic is proud of its new baby and you'll be a proud owner too**

TESTED Dec 2004

£370 Estimated Street Price (£549 RRP) — Konica Minolta A200

CCD 8.0MP effective
LENS 28-200mm f/2.8 – f/3.5
SHUTTER SPEED 15 – 1/32000 sec
ISO Auto, 50, 100, 200, 400, 800
EXPOSURE MODES Auto, P,A,S,M,4 Sc
FLASH Built in/Hotshoe)
VIEWFINDER/MONITOR EVF/1.8-inch Vari-Angle LCD
OTHER CF Type I/II, 10fps, 40-frame buffer at 640x480
POWER NP-800 Li-ion battery pack
DIMENSIONS/WEIGHT 114x80x115mm/505g

8 Mega Pixels

PROS Excellent optics & metering, images, handling
CONS AF foibles, sensitive shutter release

WDC SCORE 88%

SUMMARY **A lot of camera for the price, and easier to use than the A2**

TESTED Apr 2005

£375 Estimated Street Price (£900 RRP) — Canon G6

CCD 7.1MP effective
LENS 35-140mm Max f2.0- f3.0
SHUTTER SPEED 15 – 1/2,000 sec
ISO AUTO, 50, 100, 200, 400
EXPOSURE MODES Auto, P,A,S,M,Sc,Mov,
FLASH 70cm-5.0m (W) / 4.0m (T) (at ISO 100 equiv)
VIEWFINDER/MONITOR Opt/ 2.0in
OTHER CF I/II, +/- 2 EV
POWER Rechargeable Li-ion
DIMENSIONS/WEIGHT 104.9 x 72.8 x 73.1 mm / 380g

7 Mega Pixels

PROS Image quality, build, handling
CONS Monitor too dark, power switch

WDC SCORE 89%

SUMMARY **A serious camera to consider as an alternative to a DSLR**

TESTED Dec 2004

£380 Estimated Street Price (£499 RRP) — Sony V3

CCD 7.1MP effective
LENS 34-136mm f/2.8-4
SHUTTER SPEED 30-1/2000sec & B
ISO 100-800
EXPOSURE MODES P, A, S, M,
FLASH Built-in pop-up, Hotshoe
VIEWFINDER/MONITOR Optical/2.5in
OTHER Memorystick Pro; CF type I; 300-point metering
POWER InfoLithium
DIMENSIONS/WEIGHT 120x63x72mm/390g

7 Mega Pixels

PROS Quality build, handling
CONS A bit large for some, perhaps

WDC SCORE 87%

SUMMARY **Highly specified and capable camera that should last years**

TESTED Apr 2005

£400 Estimated Street Price (£750 RRP) — Olympus C-8080

CMOS 8MP (eff)
LENS 28-140mm
SHUTTER SPEED 1/6-1/4000sec
ISO 50-400
EXPOSURE MODES P, A, S, M, Sc
FLASH Popup & TTL hotshoe
VIEWFINDER/MONITOR EVF/ 1.8in
OTHER SuperMacro mode to 2cm, dual card (xD and CF)
POWER Li-ion
DIMENSIONS/WEIGHT 124x85x99mm/ 510g

8 Mega Pixels

PROS High resolution, good-quality lens
CONS Some buttons easy to press accidentally

WDC SCORE 86%

SUMMARY **Subtle, unflashy and capable 8MP model that produces nice results**

TESTED June 2004

£420 Estimated Street Price (£500 RRP) — Sony CD500

CCD 5.24MP
LENS 34–102mm
SHUTTER SPEED 8-1/1000sec
ISO 100,200,400
EXPOSURE MODES P, A, S, M, Sc, Mov
FLASH GN 5m@auto/wide
VIEWFINDER/MONITOR Optical/2.5in
OTHER 52mm filter thread, USB 2.0 transfer,CD
POWER Sony Info Lithium and charger inc
DIMENSIONS/WEIGHT 139x103x96mm/606g

5 Mega Pixels

PROS Cheap storage, fully featured, fast shutter
CONS Minor image quality concerns, slow playback

WDC SCORE 82%

SUMMARY **A joy to use. Cost of memory is a bonus. Everything most will need**

TESTED Oct 2003

£450 Estimated Street Price (£900 RRP) — Nikon 8700

CCD 8MP (eff)
LENS 35-280mm
SHUTTER SPEED 1/8-1/4000 sec & B
ISO Selectable to 50,100,200,400
EXPOSURE MODES P, A, S, M, Sc, Mov
FLASH GN 4m @ Auto/wide
VIEWFINDER/MONITOR EVF/ 1.8in
OTHER RAW, TIFF, JPEG, sound, custom functions
POWER Li-ion
DIMENSIONS/WEIGHT 105x113x78mm/512g

8 Mega Pixels

PROS Good image quality at low ISO, lots of features
CONS Noise at ISO 400, handling, fringing

WDC SCORE 78%

SUMMARY **The 8700 makes good use of the 8MP CCD but handling is poor**

TESTED May 2004

£450 Estimated Street Price (£1000 RRP) — Canon Pro 1

CCD 8.0MP effective
LENS 28-200mm USM L
SHUTTER SPEED 1/5-1/4000sec
ISO 50-400
EXPOSURE MODES P, A, S, M, Sc, Mov
FLASH Popup & TTL hotshoe, GN 5m @ ISO100Wide
VIEWFINDER/MONITOR EVF / 2.0in
OTHER Wireless remote, CF, 2.5fps, RAW, PictBridge
POWER Li-ion
DIMENSIONS/WEIGHT 117.5x72x90.3mm/545g

8 Mega Pixels

PROS Generally good image and lens quality
CONS Zoom control, no live histogram

WDC SCORE 83%

SUMMARY **Uninspiring design aside, the Pro 1 can achieve good results**

TESTED June 2004

£460 Estimated Street Price (£650 RRP) — Nikon 8400

CCD 8MP effective
LENS 24-85mm
SHUTTER SPEED 8-1/3000sec
ISO 50-400
EXPOSURE MODES P,A,S,M, Sc, ±2EV, Mov
FLASH Built-in/hotshoe
VIEWFINDER/MONITOR EVF /1.8in LCD
OTHER CF, swivel LCD, 2.3fps over five frames, RAW, TIFF, JPEG
POWER Li-Ion
DIMENSIONS/WEIGHT 113.6 x 82.5 x 75mm/400g

8 Mega Pixels

PROS 24mm lens, functional, build quality
CONS Some fringing & noise, overly complicated menus

WDC SCORE 89%

SUMMARY **A marked improvement on some recent Nikon cameras, very nice**

TESTED Jan 2005

£460 Estimated Street Price (£550 RRP) — Pentax *iST DL

CCD 6.31MP, 6.1MP effective
LENS Interchangeable
SHUTTER SPEED 30-1/4000sec, bulb
ISO 200-3200
EXPOSURE MODES P,A,S,M, Auto, 7 PICT modes
FLASH Pop-up and TTL hotshoe
VIEWFINDER/MONITOR TTL Optical via Penta Mirror/2.5in
OTHER SD storage, RAW, JPEG
POWER Four AA or 2 CRV-3
DIMENSIONS/WEIGHT 125 x 92.5 x 67mm/470g

6 Mega Pixels

PROS Simple to use, great results
CONS RAW processing software is limited

WDC SCORE 89%

SUMMARY **Impressive results, positive handling and good build quality**

TESTED Sept 2005

£470 Estimated Street Price (£550 RRP) — Nikon D50

CCD 6.24MP/6.1MP effective
LENS Interchangeable
SHUTTER SPEED 30-1/4000sec, bulb
ISO 200-1600
EXPOSURE MODES Auto,P, A, S, M, Sc
FLASH GN 15m (ISO200), hotshoe
VIEWFINDER/MONITOR Opt/2in LCD
OTHER SD, 3 Colour space, Pict Bridge, USB 2.0
POWER Li-ion
DIMENSIONS/WEIGHT 133 x 102 x 76mm/540g

6 Mega Pixels

PROS Simple, image quality, design & build, price
CONS Lacks some features like PC socket

WDC SCORE 87%

SUMMARY **Controls are stripped back, but it is easy to use and fast at a good price**

TESTED Aug 2005

THE BUYERS' GUIDE

cameras £400 - £600

£499 Estimated Street Price (£499 RRP) — Sanyo C4

CCD 4.23/4.0 MP
LENS 38-220mm f/3.5 – 3.7
SHUTTER SPEED 4 (lamp mode)-1/2000sec
ISO A, 50, 100, 200, 400
EXPOSURE MODES P, 6 scene modes
FLASH Built-in
VIEWFINDER/MONITOR None/1.8-inch
OTHER 128Mb and 1Gb SD cards supplied, two filters
POWER Li-ion DB-L20
DIMENSIONS/WEIGHT 69 x 108 x 34mm/159g

4 Mega Pixels

PROS Video and still image capability
CONS Awkward handling
SUMMARY **A useful option for those who want both still and movie capabilities**

WDC SCORE 80% TESTED Sept 2005

£499 Estimated Street Price (£499 RRP) — Sanyo C5

CCD 5.3MP Total 5.1MP effective
LENS 38-190mm f/3.5-4.7
SHUTTER SPEED 4-1/2000sec
ISO Auto (50-200) plus ISO 400 and 800
EXPOSURE MODES Auto + 6 Scene
FLASH Built-in GN 8
VIEWFINDER/MONITOR 2in Vari-Angle LCD
OTHER 1Gb SD included, video image stabilising
POWER Li-ion
DIMENSIONS/WEIGHT 68 x 108 x 23mm/145g

5 Mega Pixels

PROS Excellent bright light performance
CONS Suspect low-light focusing and noise
SUMMARY **Good picture quality in bright sunlight, but struggles in low light**

WDC SCORE 80% TESTED Aug 2005

£500 Estimated Street Price (£900 RRP) — Canon 300D

CMOS 6.3MP
LENS Canon EF interchangeable
SHUTTER SPEED 30-1/4000sec &Bulb
ISO 100-1600
EXPOSURE MODES P, A, M, SC
FLASH Not stated
VIEWFINDER/MONITOR OPT, 1.8in
OTHER DPOF, Direct Print
POWER Li-Ion with charger
DIMENSIONS/WEIGHT 142x99x72mm/ 649g

6 Mega Pixels

PROS Price, Image quality
CONS Scant features, no PC socket
SUMMARY **Canon's first sub-£1,000 SLR should be popular, despite scant features**

WDC SCORE 88% TESTED Dec 2003

£520 Estimated Street Price (£700 RRP) — Nikon 8800

CCD 8.3MP Total/8.0 MP Effective
LENS 35-350mm f/2.8-f/5 (10x zoom)
SHUTTER SPEED 8– 1/3000 sec & B
ISO Auto, 50, 100, 200, 400
EXPOSURE MODES Auto; P, A, S, M, Sc, Mov, ±2EV, Custom
FLASH Built in/Hotshoe
VIEWFINDER/MONITOR EVF, 1.8in Vari-Angle LCD
OTHER CF Type I/II, 2.3fps, PictBridge
POWER Li-ion
DIMENSIONS/WEIGHT 116 x 85 x 121 mm/680g

8 Mega Pixels

PROS Lens, compact, handling
CONS Image noise, limited sensitivity
SUMMARY **Eminently usable and worthy model with good results**

WDC SCORE 86% TESTED Apr 2005

£540 Estimated Street Price (£749 RRP) — Canon 350D

CMOS 8.3MP, 8MP effective
LENS Canon EF/EF-S mount
SHUTTER SPEED 30-1/4000sec & Bulb
ISO 100-1600
EXPOSURE MODES PASM, A-DEP, Auto, 5 Scene
FLASH Hotshoe, GN 13m (ISO 100)
VIEWFINDER/MONITOR Optical, 1.8" 115,000 pixel LCD
OTHER CF I/II, 9 custom functions, USB 2.0, RAW +JPEG
POWER Rechargable Li-ion
DIMENSIONS/WEIGHT 126.5 x 94.2 x 64mm/485g

8 Mega Pixels

PROS Features, fast, performance, image quality
CONS LCD , some button placements
SUMMARY **Well designed, fast and produces great results, good for semi-pros**

WDC SCORE 90% TESTED May 2005

£540 Estimated Street Price (£900 RRP) — Sony F828

CCD 8MP
LENS 28-200mm f2-2.8
SHUTTER SPEED 30-1/3200
ISO 64,100, 200,400,800
EXPOSURE MODES Auto, P, A, S, M, Sc, Mov
FLASH GN not stated
VIEWFINDER/MONITOR EVF, 1.8in
OTHER Audio recording, EXIF, Pictbridge, 58mm filter thread
POWER Info Lithium battery pack
DIMENSIONS/WEIGHT 156x134x91mm, XXg

8 Mega Pixels

PROS Great specification, lovely design, nice lens
CONS Purple finging, noise, electronic viewfinder.
SUMMARY **Lovely, but let down by fringing. With Sony firmware update, could be great**

WDC SCORE 79% TESTED Mar 2004

£540 Estimated Street Price (£700 RRP) — Olympus E-300

CMOS 8.8MP, 8MP effective
LENS 4/3 Mount Interchangeable
SHUTTER SPEED 30-1/4000sec & Bulb
ISO 100-400 (plus 800 and 1600)
EXPOSURE MODES P,A,S,M +5 dial scene and 14 Scene
FLASH Pop-up and dedicated hotshoe
VIEWFINDER/MONITOR OPT/ 1.8in
OTHER CF types I & II, RAW mode, PictBridge compatible
POWER 1500mAh Lilon cell
DIMENSIONS/WEIGHT 146.5 x 85 x 64mm/580g

8 Mega Pixels

PROS 8MP, exposure accuracy, battery life
CONS Bulky, slow write times, some artefacting
SUMMARY **Design of the 4/3 format SLR may not suit all tastes, but 8MP might**

WDC SCORE 87% TESTED Mar 2005

£580 Estimated Street Price (£800 RRP) — Nikon D70

CMOS 6.1MP (eff)
LENS Nikon F
SHUTTER SPEED 30-1/8000sec &Bulb
ISO 200-1600
EXPOSURE MODES P, A, M, SC, +/-2EV
FLASH Pop-up, i-TTL and hotshoe
VIEWFINDER/MONITOR OPT/ 1.8in
OTHER NEF, JPEG, TIFF, PictBridge
POWER Rechargeable Li-Ion or 3CR2
DIMENSIONS/WEIGHT 140x111x78mm/ 595g

6 Mega Pixels

PROS Good price, design and quality
CONS No PC socket, images need some work
SUMMARY **In many ways a dream camera, not least because of the price**

WDC SCORE 92% TESTED May 2004

£580 Estimated Street Price (£700 RRP) — Pentax *ist DS

CMOS 6.31MP, 6.1MP effective
LENS Interchangeable Pentax mount
SHUTTER SPEED 30-1/4000sec & Bulb
ISO 200-3200
EXPOSURE MODES PASM +Auto, 6 Scene
FLASH Pop-up and TTL hotshoe
VIEWFINDER/MONITOR OPT/ 2in
OTHER SD, 18 custom functions, depth of field preview
POWER 4xAA rechargeable or 2x CRV3 cells
DIMENSIONS/WEIGHT 125 x 92.5 x 66mm/505g

6 Mega Pixels

PROS Excellent image quality for pixel count
CONS Few to mention
SUMMARY **Small but fully featured, the *ist DS gives great images for the price**

WDC SCORE 88% TESTED Mar 2005

£590 Estimated Street Price (£700 RRP) — Nikon D70 S

CMOS 6.24MP total, 6.1MP effective
LENS Nikon F mount/1.5x mag
SHUTTER SPEED 30-1/8000sec
ISO 200-1600
EXPOSURE MODES PASM +Auto, 6 Scene
FLASH Pop-up and TTL hotshoe
VIEWFINDER/MONITOR TTL OPT/ 2in
OTHER Custom functions, depth of field preview
POWER Li-ion
DIMENSIONS/WEIGHT 140 x 111 x 78mm/600g

6 Mega Pixels

PROS Speed, handling, image quality, remote control
CONS Occasionally weak yellow and blues, no PC socket
SUMMARY **Disappointing upgrade, but superb speed, features and images**

WDC SCORE 90% TESTED July 2005

£650 Estimated Street Price (£1500 RRP) — Olympus E1

CCD 5.5MP
LENS Interchangeable 4/3 mount
SHUTTER SPEED 60-1/4000sec &Bulb
ISO 100-3200
EXPOSURE MODES P (with program shifts), A, S, M
FLASH No
VIEWFINDER/MONITOR Optical, 1.8in TFT
OTHER RAW PC socket,RAW,CF
POWER Rechargeable Li-Ion (inc)
DIMENSIONS/WEIGHT 141x104x81mm, 660g

5 Mega Pixels

PROS Great image quality, easy to use, versatile
CONS Focusing can be slow, no built in flash

WDC SCORE 93%

SUMMARY ***The clean images more than make up for the fact that this is only 5MP***

TESTED Dec 2003

£680 Estimated Street Price (£1150 RRP) — Konica Minolta Dynax 7D

CCD 6.1MP eff (6.3MP total)
LENS Minolta A-type bayonet
SHUTTER SPEED 30-1/4000 sec & Bulb
ISO 100-3200
EXPOSURE MODES P, A, S, M
FLASH PC socket/Hotshoe /Built-in
VIEWFINDER/MONITOR Optical TTL, 2.5in
OTHER CF, 3FPS, RAW, JPEG, USB 2.0
POWER Li-ion
DIMENSIONS/WEIGHT 150 x 106 x 77.5mm/760g

6 Mega Pixels

PROS Fully featured, build, good images, anti-shake
CONS Too many buttons, harsh noise reduction

WDC SCORE 88%

SUMMARY ***An excellent first DSLR with great build quality and good results***

TESTED Feb 2005

£900 Estimated Street Price (£1000 RRP) — Panasonic LC1

CCD 4.92MP (eff)
LENS 28-90mm
SHUTTER SPEED 1/8-1/4000 sec
ISO 100,200,400
EXPOSURE MODES P, A, S, M
FLASH GN 4m @auto/wide
VIEWFINDER/MONITOR EVF, 2.5in
OTHER SD, RAW, USB 2.0, manual focus
POWER Li-ion
DIMENSIONS/WEIGHT 82x135x103mm/630g

5 Mega Pixels

PROS Handling, LCD, flash, image quality
CONS Limiting ISO, EVF

WDC SCORE 90%

SUMMARY ***Less bucks than the Leica Digilux 2 for essentially the same camera***

TESTED June 2004

£920 Estimated Street Price (£1900RRP) — Nikon D100

CCD 6.1MP
LENS MOUNT Nikon AF
SHUTTER SPEED 30-1/4000sec &Bulb
ISO 200-1600
EXPOSURE MODES P, A, S, M
FLASH GN 11@auto
VIEWFINDER/MONITOR Optical, 1.68in TFT
OTHER 26 custom settings,RAW,CF
POWER Li-ion pack
DIMENSIONS/WEIGHT 144x116x80mm

6 Mega Pixels

PROS Colour fidelity, image processing speed
CONS Dark flash exposures, command duplication

WDC SCORE 88%

SUMMARY ***D100 involves a lot of learning, but it's worth it. Solid handling with great lenses***

TESTED Nov 2002

£930 Estimated Street Price (£1270 RRP) — Canon 20D

CMOS 8.2 MP Eff/ 8.5 Total
LENS Canon EOS EF, EF-S
SHUTTER SPEED 30 – 1/8,000sec
ISO 100-3200
EXPOSURE MODES Auto, P,A,S,M, Scenes
FLASH GN 12 @ISO 100
VIEWFINDER/MONITOR OPT/ 1.8in
OTHER CF I/II
POWER Li-ion
DIMENSIONS/WEIGHT 44 x 106 x 72 mm/770g

8 Mega Pixels

PROS Good image quality, good spec, versatile
CONS Depth of field button awkward, clunky software

WDC SCORE 91%

SUMMARY ***Simply the best DSLR for the price on the market at the time of testing***

TESTED Dec 2004

£1000 Estimated Street Price (£1100 RRP) — Sigma SD10

CCD 3.4MPx3Fovean (10.2MP total)
LENS Sigma SA bayonet mount
SHUTTER SPEED 30-1/6000 sec & Bulb
ISO 100,200,400,800, 1600
EXPOSURE MODES P, A, S, M,
FLASH No
VIEWFINDER/MONITOR Optical TTL, 1.8in
OTHER RAW recording only,CF
POWER 4xAA or 2xCR-V3
DIMENSIONS/WEIGHT 152 x 120 x 79mm/950g

3 Mega Pixels

PROS Image quality, price, lens range
CONS RAW only, software clunky, no PC socket

WDC SCORE 83%

SUMMARY ***If you can handle the manual processing, it does the job for a good price***

TESTED Jan 2004

£1230 Estimated Street Price (£1300 RRP) — Leica Digilux 2

CCD 4.92MP (eff)
LENS 28-90mm
SHUTTER SPEED 1/8-1/4000sec
ISO 100,200,300
EXPOSURE MODES P, A, S, M
FLASH GN 4m @Auto/wide
VIEWFINDER/MONITOR EVF, 2.5in
OTHER SD, RAW, USB 2.0, Manual focus
POWER Li-Ion
DIMENSIONS/WEIGHT 82x135x103mm, 630g

5 Mega Pixels

PROS Excellent image quality, handling, design
CONS Expensive, low ISO range, EVF may be unpopular

WDC SCORE 89%

SUMMARY ***A great piece of kit, though I can't help feeling it is overpriced***

TESTED May 2004

£1300 Estimated Street Price (£1600 RRP) — Fujifilm S3 Pro

CCD 6.17 'S', 6.17 'R' MP, 12MP output
LENS Nikon F mount
SHUTTER SPEED 30-1/4000sec & Bulb
ISO 100-1600
EXPOSURE MODES P, A, S, M
FLASH PC socket, Hotshoe, Built-in
VIEWFINDER/MONITOR OPT, 2in
OTHER CF, xD, 2.5fps, RAW, JPEG, USB2.0, IEEE 1394
POWER 4x AA NiMH batteries, optional AC adaptor
DIMENSIONS/WEIGHT 47.8 x 135.3 x 78.5mm, 815g

6 Mega Pixels

PROS Image quality, ease of use, sensor
CONS Software clunky, slow drive, small buffer

WDC SCORE 85%

SUMMARY ***It may be a slow operator but image quality is superb***

TESTED Mar 2005

£2000 Estimated Street Price (£2000 RRP) — Epson RD1

CCD 6MP effective
LENS Interchangeable EM mount
SHUTTER SPEED 1-1/2000sec & B
ISO 200-1600
EXPOSURE MODES Manual, Aprture Priority AE
FLASH Hotshoe/ PC (X-sync)
VIEWFINDER/MONITOR Real size optical/ 2.0" LCD
OTHER SD, optical rangefinder, JPEG, RAW
POWER Li-Ion
DIMENSIONS/WEIGHT 88.5x142x39.5mm/590g

6 Mega Pixels

PROS Build, design, innovative features, RAW plug-in
CONS Vignetting, no PC connection

WDC SCORE 85%

SUMMARY ***Quirky and fun, the world's first digital rangefinder has some image issues***

TESTED Feb 2005

£2400 Estimated Street Price (£2800RRP) — Nikon D2H

CCD 4.1MP JFET LBCAST
LENS Nikon F Mount
SHUTTER SPEED 30-1/8000sec &Bulb
ISO 200-1600
EXPOSURE MODES P,A,S,M
FLASH No
VIEWFINDER/MONITOR OPT/ 2.5in LCD
OTHER Wieless LAN, 8fps over 40Frames, RAW, CF
POWER Li-Ion
DIMENSIONS/WEIGHT 158x150x86mm/1150g

4 Mega Pixels

PROS Build, handling, AF
CONS Expensive, not weather sealed

WDC SCORE 91%

SUMMARY ***A pro camera that will appeal to sports and news photographers***

TESTED Apr 2004

£3000 Estimated Street Price (£3500RRP) — Nikon D2X

CMOS 12MP effective
LENS MOUNT Interchangeable Nikon AF
SHUTTER SPEED 30-1/8000sec & Bulb
ISO 100-800
EXPOSURE MODES P, A, S, M, ±5EV
FLASH Hotshoe/ PC (X-sync)
VIEWFINDER/MONITOR Optical/ 2.5" LCD
OTHER CFI/II, JPEG, RAW, TIFF, 5fps over 21 in Jpeg mode
POWER Li-ion EN-EL4
DIMENSIONS/WEIGHT 157 x 149.5 x 85.5mm/1070g

12 Mega Pixels

PROS Great design, image quality, speed, features
CONS Single card slot, some faint fringing, software

WDC SCORE 95%

SUMMARY ***Superb handling and packed with features, little to criticise***

TESTED May 2005

£3000 Estimated Street Price (£3500RRP) — Kodak Pro SLR/C

CMOS 13.5MP effective
LENS MOUNT Canon EOS EF
SHUTTER SPEED 60-1/6000sec
ISO 160-1600
EXPOSURE MODES P, A, S, M
FLASH PC socket, hotshoe
VIEWFINDER/MONITOR Optical TTL / 1.8in
OTHER CF I&II, SD, 1.7fps, RAW, JPEG-ERI, GPS, Firewire
POWER Li-Ion
DIMENSIONS/WEIGHT 137x149x76mm / 895g

14 Mega Pixels

PROS Resolution, customisable, good software
CONS JPEG quality, noise, design

WDC SCORE 82%

SUMMARY ***A rare alternative to Canon for EF lenses, but not without its problems***

TESTED Nov 2004

£3100 Estimated Street Price (£3500RRP) — Canon Eos 1D MKII

CCD 8.0MP effective
LENS Canon EOS EF Mount
SHUTTER SPEED 30-1/8000sec
ISO 50-3200
EXPOSURE MODES P, A, S, M ±3EV
FLASH Hotshoe/PC
VIEWFINDER/MONITOR TTL/2.0in LCD
OTHER CF, SD, 8fps over 40 frames,RAW
POWER NiMH
DIMENSIONS/WEIGHT 156x158x80mm/1220g

8 Mega Pixels

PROS Superb image quality, rapid capture, design
CONS Buggy software, the price

WDC SCORE 92%

SUMMARY ***A more affordable alternative to the EOS 1D that matches its performance***

TESTED July 2004

£3100 Estimated Street Price (£4300 RRP) — Kodak Pro SLRn

CCD 13.5MP effective
LENS Nikon F Mount
SHUTTER SPEED 2-1/4000sec & B
ISO: 6-1600
EXPOSURE MODES P, A, S, M, ±3EV
FLASH Built-in/Hotshoe/PC
VIEWFINDER/MONITOR OPT/ TTL/ 2.0" LCD
OTHER CF, SD, 1.7fps, tethered shooting
POWER DCS PRO battery/ DC in
DIMENSIONS/WEIGHT 131x158x89mm/907g

14 Mega Pixels

PROS Lots of pixels, customisable, good images
CONS Some noise, bulky, complicated

WDC SCORE 89%

SUMMARY ***Not quite perfect but there's a lot of pixels per pound and detail is good***

TESTED Aug 2004

£5000 Estimated Street Price (£6000RRP) — Canon Eos 1DS MKII

CMOS 16.7MP effective Full frame
LENS MOUNT Interchangeable EF mount
SHUTTER SPEED 30-1/8000sec & Bulb
ISO 100-1600
EXPOSURE MODES P, A, S, M, ±3EV
FLASH Hotshoe/ PC (X-sync)
VIEWFINDER/MONITOR Real size optical/ 2.0" LCD
OTHER SD, CFI&II, JPEG, RAW, JPEG+RAW
POWER Ni-MH pack
DIMENSIONS/WEIGHT 156 x 158 x 80mm/1215g

16 Mega Pixels

PROS Superb image quality, camera body design
CONS None really, but a larger LCD would be nice

WDC SCORE 96%

SUMMARY ***Quite simply, as good as it gets. Canon has another scorcher***

TESTED Apr 2005

The TOP printers & paper

Buying a printer? These are our picks. We've listed photo paper too

6"x4" home printer

£150 Epson Picturemate

TYPE & RESOLUTION 6 x 4 inch Inkjet/Up to 5760 x 1440dpi
FEATURES Pictbridge compatible, direct printing from memory cards and Bluetooth option with adaptor
SUMMARY ***Good colours & sharpness, this compact option is cheap to run, but slow***
WDC SCORE **85%** MAR 2005

£150 Kodak PrinterDock

TYPE & RESOLUTION 6 x 4 inch dye-sub/ not disclosed
FEATURES Pictbridge compatible, will recharge a Kodak digital camera
SUMMARY ***Print quality is good, although not competitive at around 50p a print***
WDC SCORE **85%** MAR 2005

£150 Canon CP330

TYPE & RESOLUTION 6 x 4 inch dye-sub/300dpi
FEATURES Lithium-ion battery, Pictbridge compatible, range of paper sizes, including sticker prints
SUMMARY ***Produces good-quality prints at a reasonable price. Portable, thanks to battery***
WDC SCORE **83%** MAR 2005

£170 Canon DS700

TYPE & RESOLUTION 6 x 4 inch Inkjet/ up to 4800 x 1200dpi
FEATURES Card slots, Pictbridge compatible, includes infrared remote and uses a TV as a display monitor
SUMMARY ***Low profile device that is easy to use with a TV. Print quality is on the warm side***
WDC SCORE **82%** MAR 2005

£90 Lexmark P315

TYPE & RESOLUTION 4800x1200dpi
FEATURES Pictbridge, card slots for all current media cards, Jpeg only
SUMMARY ***Not the fastest or best, but simple inexpensive and serviceable***
WDC SCORE **83%** AUG 2005

£180 HP 375

TYPE & RESOLUTION 6x4 Inkjet, 4800x1200dpi
FEATURES Bluetooth, LCD, Memory card slots, PictBridge support
SUMMARY ***Fast, compact and versatile unit, prints can be grainy***
WDC SCORE **82%** MAR 2005

£150 Olympus P10

TYPE & RESOLUTION 6 x 4 inch dye-sub/310dpi
FEATURES Uses single ribbon cartridge. Pictbridge compatible, small footprint
SUMMARY ***Very fast unit, however it is noisy and print quality is poor***
WDC SCORE **79%** MAR 2005

£176 Sanyo DVP-P1EX

TYPE & RESOLUTION 6x4in 3 dye-sub/310dpi
FEATURES Dye-sub, integrated card slots, PictBridge support
SUMMARY ***Fast, good print quality, small footprint, however, it's noisy***
WDC SCORE **73%** FEB 2004

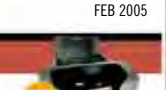
A4 Size home printer

£200 Canon iP6000D

TYPE & RESOLUTION A4 Inkjet/1200 x 4800 dpi
FEATURES Card slots, Pictbridge compatible, dual paper trays, CDR/DVD printing, infrared wireless port
SUMMARY ***Refined and versatile unit producing good quality prints***
WDC SCORE **90%** FEB 2005

£170 Canon iP5000

TYPE & RESOLUTION A4 Inkjet /2400 x 9600 dpi
FEATURES Pictbridge compatible, dual paper trays, integral duplex unit, CDR/DVD print
SUMMARY ***Fast, quiet and produces good photo prints, however it is pricey***
WDC SCORE **88%** FEB 2005

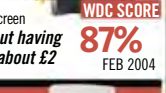
£300 Epson R800

TYPE & RESOLUTION A4 Inkjet/ Up to 5760x1440dpi
FEATURES 8 dye-based inks, eight tanks Extended gamut pigment photo inks
SUMMARY ***Pleasing print quality and solid build, although it isn't Pictbridge compatible***
WDC SCORE **88%** MAR SUPP 2005

£330 Canon iP8500

TYPE & RESOLUTION A4 Inkjet/4800 x 2400dpi
FEATURES Pictbridge support, dual paper trays, integral duplex unit, CDR/DVD printing, USB 2.0
SUMMARY ***A fast device with excellent colour range and sharpness, however it isn't cheap***
WDC SCORE **87%** MAR SUPP 2005

£399 Olympus P440

RESOLUTION A4 dye-sub/314dpi
TRANSPARENCY UNIT No
FEATURES xD and PCMCIA card slots, colour LCD screen
SUMMARY ***As'real' as you can get without having a pro lab in your home. Unit print cost about £2***
WDC SCORE **87%** FEB 2004

£100 Lexmark P915

TYPE & RESOLUTION A4 Inkjet/ 1200 x 4800dpi
FEATURES Long lasting Evercolor ink cartridge, Pictbridge compatible, Memory card slots
SUMMARY ***Great value, good fade-resistant photo prints, though could be faster***
WDC SCORE **85%** FEB 2005

£85 Epson R200

TYPE & RESOLUTION A4 Inkjet/ Up to 5760x1440dpi
FEATURES 6 dye-based inks, six tanks. Single-colour ink tanks, CD printing
SUMMARY ***Remarkable specification for the price***
WDC SCORE **84%** FEB 2005

£170 HP 8150

TYPE & RESOLUTION A4 Inkjet/1200 x 4800dpi
FEATURES Memory card slots, Pictbridge compatible, optional Bluetooth and 10 x 15cm double sided prints
SUMMARY ***Range of features, however borderless printing is unsatisfactory***
WDC SCORE **84%** FEB 2005

£250 HP 8450

TYPE & RESOLUTION A4 inkjet/4800 x 1200dpi
FEATURES Pictbridge compatible, Memory card slots, double- sided photo print adaptor
SUMMARY ***Relatively good value and easy to use, however it is relatively slow and large***
WDC SCORE **84%** MAR SUPP 2005

£249 Canon i905D

TYPE & RESOLUTION A4 Inkjet/4800x1200dpi
FEATURES 6 dye-based inks, six tanks Single-colour ink tanks
SUMMARY ***Print direct from memory cards or PictBridge cameras, true photo inks***
WDC SCORE **83%** JUNE 2004

A3 Size home printer

£500 Epson R2400

TYPE & RESOLUTION A3+ Inkjet, 5760x1400 dpi
FEATURES USB 2.0, Firewire, borderless printing possible, roll printing
SUMMARY ***Highly recommended. Design is good, but the results are better***
WDC SCORE **93%** AUG 2005

£400 Epson R1800

TYPE & RESOLUTION A3+ Inkjet 5760x1440 dpi optimised
FEATURES Epson Ultra Chrome Hi-Gloss inks, PictBridge
SUMMARY ***A spanking printer with good out-of-the-box colour***
WDC SCORE **87%** MAY 2005

£350 Epson 1290S

TYPE & RESOLUTION A3+ Inkjet/ 2880 x 720dpi
FEATURES Epson Quick Dry 6 colour inks, panoramic photo formats
SUMMARY ***Good tonal range, prints can look a little soft thanks to the low resolution***
WDC SCORE **79%** OCT 2003

£280 Canon i6500

TYPE & RESOLUTION A3+ Inkjet/2880 x 1200dpi
FEATURES 4 CMYK ink tanks, advanced MicroFine Droplet Technology,
SUMMARY ***Very fast and reasonably priced, but picture quality lacks bite***
WDC SCORE **75%** OCT 2003

£549 Canon i9950

TYPE & RESOLUTION A3+ Inkjet/4800x1200dpi
FEATURES 8 dye-based inks, eight tanks. Single colour ink tanks. Available May 2004
SUMMARY ***8-ink ChromaPLUS photo system***

Multi Function
all-in-one printer,scanner &copier

£159 Epson CX6400

PRINTER A4 Inkjet/ 5760dpi optimised
SCANNER/OTHER 1200x2400/copier
INKS Epson Durabrite pigment inks
SUMMARY ***A no-frills unit offering good value and good all round performance***
WDC SCORE **81%** SEPT 2004

£299 Canon MP730

PRINTER A4 Inkjet/4800x1200dpi
SCANNER/OTHER 1200x2400ppi/copier/fax
INKS 3 colours and black
SUMMARY ***Impressive scanning but prints are disappointing. Well specified and good value, though***
WDC SCORE **80%** SEPT 2004

£149 Canon MP370

PRINTER A4 Inkjet 4800x1200dpi
SCANNER/OTHER 1200x2400ppi/copier/ PictBridge
INKS 3 colours and black
SUMMARY ***A great looker and competitively priced but falls short in use. It has got PictBridge, though***
WDC SCORE **78%** SEPT 2004

£200 Canon MP390

PRINTER A4 Inkjet/4800x1200dpi
SCANNER/OTHER 1200x2400ppi CIS A4 scanner, copier,fax
INKS 4 inks (black pigment, colour dyes) 2 tanks
SUMMARY ***With card and camera support this offers photo features along with the office functions***
WDC SCORE **77%** JUNE 2004

£130 HP PSC1350

PRINTER A4 Inkjet/4800x1200dpi
SCANNER/OTHER 600x2400ppi/copier
INKS 3 colour plus black, optional photo cartidge
SUMMARY ***It's a bit loud for the home environment but the scanner is quick with good density***
WDC SCORE **73%** SEPT 2004

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The TOP scanners

For best-quality scans from prints, negs and trannies

Inkjet Paper
A4 Size

£11 Sample Price — **ICI Olmec** A4

SAMPLE PRICE £11 A4 Photo Inkjet Glossy (20 sheets 260gsm) **CONTACT** www.ici-imagedata.com
SUMMARY ***Good quality ink-jet photo papers from a trusted brand. A number of own-brand papers appear to share the same manufacturer.***

£7.99 Sample Price — **Jessops** A4

SAMPLE PRICE £7.99 A4 Photo Inkjet Glossy (20 sheets 260gsm) **CONTACT** www.jessops.com
SUMMARY ***Competitively priced papers in many finishes. Samples of heavier weight glossy we tested worked very well with most printers and appear the same as Olmec equivalents***

£9.99 Sample Price — **Permajet** A4

SAMPLE PRICE £12.95 A4 Instant Dry Gloss (25 sheets 271gsm) **CONTACT** www.novadarkroom.com
SUMMARY ***Permalet papers all resist fading, meaning they are acid-free and incorporate anti-UV. Available in many weights and finishes with the fine-art market in mind.***

£20 Sample Price — **Hahnemühle** A4

SAMPLE PRICE £20 Digital Fine Art Paper A4 Range Pack (sampler of 20 sheets) **CONTACT** www.hahnemuhle.com
SUMMARY ***Hahnemuhle has become one of the most respected manufacturers of coated fine-art papers and boards for archival ink-jet printing, including cotton-based 'rag' papers.***

£49.35 Sample Price — **Lyson** A4

SAMPLE PRICE £9.02 A4 Pro Colour Gloss (240gsm 20 sheets) **CONTACT** www.lyson.com
SUMMARY ***Lyson has forged a reputation for alternative inks aimed at enthusiasts and pros, and has a range of archival papers in various finishes and weights, including roll paper.***

£20 Sample Price — **St Cuthberts Mill** A4

SAMPLE PRICE £20 A4 Enhanced Velvet (225gsm 25 sheets) **CONTACT** www.inveresk.co.uk/stcuth
SUMMARY ***St Cuthberts Mill is home to the famous Somerset fine-art paper ranges of which a selection is available in specially coated form for archival ink-jet use.***

£10 Sample Price — **Jet Tec** A4

SAMPLE PRICE £10 A4 High Quality Photo Glossy Inkjet Paper (20 sheets 272gsm) **CONTACT** www.jettec.co.uk
SUMMARY ***Jet Tec is a UK-based manufacturer of third party inks for ink-jet printers. To accompany its inks, Jet Tec markets a range of ink-jet papers including photo-quality papers.***

£15.26 Sample Price — **Tetenal** A4

SAMPLE PRICE £15.26 A4 Photo Glossy (272gsm 20 sheets) **CONTACT** www.tetenal.co.uk
SUMMARY ***Tetenal is famous for its darkroom developers, but is also a significant inkjet media player, with its Spectra Jet papers ranging in weight and finish, including an archival glossy paper.***

£8.99 Sample Price — **PC Line** A4

SAMPLE PRICE £8.99 A4 Premium Ink Jet Paper (20 sheets 240gsm (est.) **CONTACT** www.pcworld.co.uk
SUMMARY ***The Dixons Group own-brand ink-jet paper brand. We've tried several samples of PC Line glossy photo paper and the results were poor. It's not that cheap either.***

£49.35 Sample Price — **Innova** A4

SAMPLE PRICE £49.35 A4 Soft-Textured Art Fourdrinier Acid Free (315gsm 50 sheets) **CONTACT** www.innovaart.com
SUMMARY ***Aimed at the archival and exhibition markets, with high-tech coated media based on traditional acid-free paper bases. Also available through OEM brands.***

Flatbed
home scanner

£179 Street Price — **Canon** 8400F

RESOLUTION 3200x6400ppi
TRANSPARENCY UNIT Yes
FEATURES Multi-photo scan, USB 2.0, FARE scratch removal ***SUMMARY*** ***Very fast and producing good-quality scans***
WDC SCORE **91%** APRIL 2005

£350 Street Price — **Epson** 4990

RESOLUTION 4800x9600 ppi
TRANSPARENCY UNIT Yes
FEATURES Holders for film up to 5x4, Silver Fast AE, PS Elements 2, USB 2, Digital ICE
SUMMARY ***Good results and verstatility, but not the cheapest on the block***
WDC SCORE **90%** MAY 2005

£350 Street Price — **Epson** 4870

TYPE & RESOLUTION 4800x9600ppi
TRANSPARENCY UNIT Yes
FEATURES Full-width TPU, 24 film frames, 8 slides capacity, roll film, 5x4in, Digital ICE
SUMMARY ***Highest spec consumer scanner yet***
WDC SCORE **90%** AUG 2004

£139 Street Price — **Canon** LIDE 80

TYPE & RESOLUTION 2400x4800ppi
TRANSPARENCY UNIT Yes
FEATURES Single-frame 35mm film scanning, CIS, USB2.0
SUMMARY ***Ultra-slim, fast and great results – WDC's Scanner of the Year 2003***
WDC SCORE **90%** AWARDS ISSUE 2003

£129 Street Price — **Epson** 2580

TYPE & RESOLUTION Flatbed, 2400x4800ppi
TRANSPARENCY UNIT Yes
FEATURES USB 2.0, colour restoration & dust removal
SUMMARY ***Well-specified model producing great results for a low price***
WDC SCORE **89%** JAN 2005

£129 Street Price — **Canon** 8000F

TYPE & RESOLUTION 2400x4600ppi
TRANSPARENCY UNIT Yes
FEATURES Scans 12 35mm film frames, FARE dust and scratch removal, USB 2.0
SUMMARY ***Good all-rounder, no roll film support***
WDC SCORE **88%** MAR 2003

£200 Street Price — **HP** 5530

TYPE & RESOLUTION 2400x4800ppi
TRANSPARENCY UNIT Yes
FEATURES Automatic postcard print stack and feeder
SUMMARY ***6x4in print feeder – unique to HP***
WDC SCORE **87%** AUGUST 2004

£339 Street Price — **Canon** 9950F

TYPE & RESOLUTION Flatbed A4
TRANSPARENCY UNIT Yes
FEATURES Holders up to 5x4, PS Elements 2, USB 2, FARE
SUMMARY ***Good image and build quality, but FARE is less effective than Digital ICE***
WDC SCORE **87%** MAY 2005

£116 Street Price — **HP** 4670

TYPE & RESOLUTION 2400x2400ppi
TRANSPARENCY UNIT Yes
FEATURES Vertical or flat operation, see-through design
SUMMARY ***Beautifully designed, but average scan quality and speed***
WDC SCORE **86%** APRIL 2005

£200 Street Price — **Epson** 4180

TYPE & RESOLUTION 4800dpi x Sub 9600dpi
TRANSPARENCY UNIT Yes
FEATURES Alternate 6 lines colour MatrixCCD
SUMMARY ***Versatile unit producing sharp scans, but a little expensive***
WDC SCORE **86%** APRIL 2005

Film
home scanner

£600 Street Price — **Minolta** 5400

FILM SIZE & RESOLUTION 35mm/5400ppi
FEATURES USB 2.0, Digital ICE4 dust and scratch removal included
SUMMARY ***Incredibly high resolution***
WDC SCORE **91%** SEPT 2004

£300 Street Price — **Minolta** Scan Dual IV

TYPE 35mm/APS Film scanner
FEATURES USB 2.0, 3200PPI resolution
SUMMARY ***Price, speed and quality make it good for a medium number of scans***
WDC SCORE **90%** AUG 2005

£549 Street Price — **Epson** F-3200

FILM SIZE & RESOLUTION Up to 5x4, 3200dpi/6400dpi with micro step
FEATURES USB 2, FireWire, 6X4 print scanning function
SUMMARY ***Great for multi format***
WDC SCORE **90%** JUNE 2005

£800 Street Price — **Microtek** 4000TF

RESOLUTION 4000ppi
FILM SIZE 35mm
FEATURES USB, Firewire
SUMMARY ***SilverFast Ai Pro 6 software bundled***
WDC SCORE **90%** OCT 2004

£2500 Street Price — **Nikon** LS9000

FILM SIZE & RESOLUTION 35mm and 6x9cm roll film/4000ppi
FEATURES Digital ICE4/ROC, Firewire
SUMMARY ***Multi-format film scanner***
WDC SCORE **89%** AUGUST 2004

£2276 Street Price — **Minolta** Pro

FILM SIZE & RESOLUTION 35mm, 120/220 roll film up to 6x9cm/4800ppi
FEATURES Ultra SCSI, Firewire, Digital ICE3 dust and scratch removal
SUMMARY ***Capable of scanning roll film***
WDC SCORE **88%** JULY 2004

£520 Street Price — **Nikon** Coolscan LS50

FILM SIZE & RESOLUTION 35mm / 4000ppi
FEATURES USB 2.0, Digital ICE4 dust and scratch removal
SUMMARY ***High resolution, fast and easy to use. Also known as the Coolscan V***
WDC SCORE **76%** APRIL 2003

£1099 Street Price — **Nikon** LS5000

FILM SIZE & RESOLUTION 35mm/4000ppi
FEATURES 48-bit, 16-bit a/d, Digital ICE4 dust and scratch removal, USB 2.0
SUMMARY ***Very fast – 20 seconds per frame***

£400 Street Price — **Microtek** 3600

FILM SIZE & RESOLUTION 35mm/1800ppi
FEATURES USB, 36-bit
SUMMARY ***Simple manual feed film scanner for the budget-conscious***

£449 Street Price — **Canon** FS4000US

FILM SIZE & RESOLUTION 35mm, APS/4000dpi
FEATURES APS adapter included, FARE dust and scratch removal, SCSI and USB, accepts strips and slide mounts
SUMMARY ***Competitively priced. Includes APS option***

The TOP portable drives & software

Software to improve your images and the best storage devices

Portable Hard drives
Storage devices

£350 Street Price — **Epson** P2000
DESCRIPTION 40GB Multimedia Viewer
PLATFORMS Windows/Mac
FEATURES 3.8in LCD, MP3, JPEG, RAW, TIFF, AAC, MPEG 4
SUMMARY ***The great screen and compatibility with Epson printers makes this a serious bit of kit***
WDC SCORE 86% JAN 2005

£350 Street Price — **Apple** iPod Photo
DESCRIPTION 40/60GB Multimedia player
PLATFORMS Windows/Mac
FEATURES AAC, MP3, WAV, JPEG,AIFF, GIF, BMP, PNG,
SUMMARY ***Limited functions, with reliance on computer. Good music player, better functionality with iPod connector***
WDC SCORE 86% MAR 2005

£400 Street Price — **Nikon** Coolwalker
DESCRIPTION Photo player
PLATFORMS Windows/Mac
FEATURES CF slot, USB 2, 2.5in screen, JPEG, TIFF, NEF
SUMMARY ***Understandably Nikoncentric, but easy to use and quick to use and learn***
WDC SCORE 83% JULY 2005

£300 Street Price — **Innoplus** Phototainer
FEATURES JPEG viewer, MP3 and MJPEG video player with 3.5in colour screen. CF I&II only, adaptors for other cards extra. **CAPACITY** 30GB
SUMMARY ***Very similar to the Smartdisk Flashtrax Multi Media Viewer***
WDC SCORE 86% APR 2005

£315 Street Price — **Vosonic** MMV VP6300
DESCRIPTION Multimedia Viewer
PLATFORMS Windows/Media
Features 20GB, 2in screen
SUMMARY ***Simple, effective and reasonably priced player that just works***
WDC SCORE 85% APR 2005

£400 Street Price — **Jobo** Giga Vue
DESCRIPTION Picture Viewer
PLATFORMS Windows, Mac
Features 40/60GB, USB 2.0, RAW support, 320 x 480 pixel screen
SUMMARY ***A touch sensitive screen and RAW support are among the top features of this cool device***
WDC SCORE 86% APR 2005

£258 Street Price — **Tatung** Elio Photo Jukebox
DESCRIPTION MultiMedia player
PLATFORMS Windows/Mac
FEATURES 20GB, 3.5in LCD, JPEG, TIFF, MP3. SD, USB 2.0,
SUMMARY ***Small enough for your pocket but better suited for MP3s than photos***
WDC SCORE 86% APR 2005

£179 Street Price — **Addonics** MFR CD Burner
DESCRIPTION CD burner/ DVDS player
PLATFORMS Windows
Features Portable USB 2.0 CD burner, DVD playback
SUMMARY ***If only it had 5.1 Dolby sound this little portable player could replace your domestic DVD player***
WDC SCORE 86% AUG 2004

£299 Street Price — **Apacer** Disc Steno CP-200
FEATURES Li-ion powered Portable CD burner with 24x read, 24x write, 10x re-write, USB 2.0. Quite large.
SUPPORTS CF Type I/II, SD, MMC, MS, SM
SUMMARY ***Back up to CDs on the road while the improved interface provides greater piece of mind***
WDC SCORE 86% JUL 2004

£195 Street Price — **Sony** HDPS M1
DESCRIPTION Portable Hard Drive
PLATFORMS Windows
FEATURES 40GB, USB 2.0, CF I/II, MS Pro/Duo
SUMMARY ***Easy to use and reasonably priced but the software could be better***
WDC SCORE 86% APR 2005

Editing
software

£522 Street Price — **Adobe** Photoshop CS2
DESCRIPTION Image Editing Suite
PLATFORMS Mac OS X/ Windows 2000/XP
DOWNLOADABLE TRIAL www.adobe.com
SUMMARY ***The biggest and best version yet, with even more photographic tools***
WDC SCORE 96% JULY 2005

£69 Street Price — **Adobe** Photoshop Elements 3.0
DESCRIPTION Image Editing Suite
PLATFORMS Mac OS X/ Windows 2000/XP
DOWNLOADABLE TRIAL www.adobe.com
SUMMARY ***At a tenth of the price of the full version, this is a bargain and a worthy upgrade to version 2.***
WDC SCORE 96% JAN 2005

£60 Street Price — **Ulead** Photoimpact 10
DESCRIPTION Image Editing Suite
PLATFORMS Windows 98SE, 2000, Me or XP
DOWNLOADABLE TRIAL www.ulead.com
SUMMARY ***If you're looking for a cheaper rival to Photoshop, it could be what you need***
WDC SCORE 96% FEB 2005

£100 Street Price — **Corel** Paintshop Pro 9.0
DESCRIPTION Image Editing Suite
PLATFORMS Windows 98SE and up
DOWNLOADABLE TRIAL www.corel.com
SUMMARY ***Unique features put PSP 9 above many of its competitors, and it is an essential tool for Windows users***
WDC SCORE 96% MAR 2005

£49 Street Price — **Roxio** Photosuite 7.0
DESCRIPTION Image Editing Suite
PLATFORMS www.roxio.com
DOWNLOADABLE TRIAL www.roxio.com
SUMMARY ***Fairly restrictive in some areas but fantastic CD and DVD slideshow components***
WDC SCORE 86% JULY 2004

Organising
software

£59 Street Price — **Apple** iPhoto
DESCRIPTION Digital Photo Management
PLATFORMS Mac OS X
DOWNLOADABLE TRIAL part of iLife 05
SUMMARY ***The best update yet to Apple's default browser, with great slideshow facilities***
WDC SCORE 86% JULY 2005

£120 Street Price — **Iview** Media Pro 2.5
DESCRIPTION Digital Asset Management
PLATFORMS Mac OS X/ Windows 2000/XP
DOWNLOADABLE TRIAL www.iview-multimedia.com
SUMMARY ***Catalogues a wide variety of styles quickly and effectively***
WDC SCORE 96% JUNE 2004

£489 Street Price — **Fotoware** Fotostation Pro 5
DESCRIPTION Catalogue
PLATFORMS Windows 2000/XP
DOWNLOADABLE TRIAL www.fotostation.com
SUMMARY ***Very good and powerful asset manager but also more expensive than most***
WDC SCORE 86% MAY 2005

£130 Street Price — **Extensis** Portfolio
DESCRIPTION Digital Asset Management
PLATFORMS Mac OS X/ Windows XP
DOWNLOADABLE TRIAL www.extensis.com
SUMMARY ***Powerful, fast and professional DAM system but complicated for home use***
WDC SCORE 85% FEB 2005

£88 Street Price — **Corel** Paintshop Photo Album 5.0
DESCRIPTION Catalogue
PLATFORMS Windows 98-XP
DOWNLOADABLE TRIAL www.corel.com
SUMMARY ***Versatile and easy to use with a very friendly price, but limited to PC only***
WDC SCORE 86% JAN 2005

Plug-ins
software

£55 Street Price — **Pixel Genius** Photokit Sharpener
DESCRIPTION Image sharpening
PLATFORMS Windows / Mac
DOWNLOADABLE TRIAL www.pixelgenius.com
SUMMARY ***Image sharpening workflow tool, from capture to output***
WDC SCORE 96% MAY 2004

£55 Street Price — **Pixel Genius** Photokit Colour
DESCRIPTION Colour tools and effects
PLATFORMS Windows 98 and up, Mac OS 9.1
DOWNLOADABLE TRIAL www.pixelgenius.com
SUMMARY ***Time-saving software capable of a wide variety of excellent results***
WDC SCORE 96% MAY 2005

£40 Street Price — **Iridius** PS Actions
DESCRIPTION Adobe Photoshop Actions
PLATFORMS Windows 2000/XP, Mac X
DOWNLOADABLE TRIAL www.adobe.co.uk
SUMMARY ***For the busy photographer, the Iridus action set is a fantastic, time-saving life saver***
WDC SCORE 96% NOV 2004

£140 Street Price — **Extensis** Photoframe 2.5
DESCRIPTION Collection of edge effects
PLATFORMS Windows / Mac
DOWNLOADABLE TRIAL www.extensis.co.uk
SUMMARY ***Combine and customise any of the 2000+ natural and digital frames or create your own***
WDC SCORE 96%

£140 Street Price — **Extensis** Pixel Smart Scale
DESCRIPTION Tool for rescaling images up to 1600%
PLATFORMS Windows / Mac
DOWNLOADABLE TRIAL www.extensis.co.uk
SUMMARY ***Enlarge images beyond their natural limits, with no loss of colour or quality***
WDC SCORE 96%

£140 Street Price — **Extensis** Mask Pro
DESCRIPTION Professional cut outs around complex shapes
PLATFORMS Windows, Mac
DOWNLOADABLE TRIAL www.extensis.co.uk
SUMMARY ***Complex masks, selections, clipping paths made easy. Perfect edges every time***
WDC SCORE 96%

£100 Street Price — **Nik** Sharpner Pro
DESCRIPTION Pro image sharpening tool
PLATFORMS Windows/Mac
DOWNLOADABLE TRIAL www.nikmultimedia.com
SUMMARY ***Precise, controllable sharpening using a choice of criteria. Top-draw plug-in***
WDC SCORE 96%

£99 Street Price — **Real Viz** Stitcher Express
DESCRIPTION Panorama creator
PLATFORMS Windows 2000, SP2, XP, Mac OSX, 10.2
DOWNLOADABLE TRIAL www.realviz.com
SUMMARY ***Simple interface and powerful stitching at a reasonable price***
WDC SCORE 96% JUNE 2005

FREE Street Price — **Pixmantec** Raw Shooter Essentials
DESCRIPTION Raw image processor
PLATFORMS Windows XP, 2000
DOWNLOADABLE TRIAL www.pixmantec.com
SUMMARY ***Raw conversion times are fast although the interface could be improved***
WDC SCORE 85% JUNE 2005

£95 Street Price — **Genuine** Fractals 4.0
DESCRIPTION Superb fractal-powered enlargement plug-in
PLATFORMS Windows / Mac
DOWNLOADABLE TRIAL www.lizardtech.com
SUMMARY ***Enlarge images up to 600% with no degredation in quality. Make big prints from small files***
WDC SCORE 96%